Legal & General Group PLC Credit Scenario Education Event

Company Participants

- Kerrigan William Procter, Executive Director
- Simon Gadd, Group Chief Risk Officer
- Stuart Jeffrey Davies, CFO & Director

Other Participants

- Alan Devlin, Director
- Andrew Hughes, Insurance Analyst
- Andrew John Crean, Managing Partner, Insurance
- Andrew Sinclair, VP
- Colm Kelly, Associate Director and Equity Research Insurance Analyst
- David Bracewell, Research Analyst
- Greig N. Paterson, MD, SVP and U.K. Analyst
- Oliver George Nigel Steel, MD
- Unidentified Participant, Analyst

Presentation

Stuart Jeffrey Davies {BIO 20023574 <GO>}

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 a request 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.

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.

The purpose of today is to cover how the GBP 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.

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

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

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

We've been voted the Best Lifetime Mortgage lender at the 2016 Equity Release Awards. And have the #1 franchise in U.K. Retail Protection, with a 24% market share.

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.

LGR has written over GBP 1 billion of PRT and has a current U.K. pipeline of GBP 12 billion. Individual Annuities have had a great start, up 120% on this time last year. And we've written GBP 360 million of lifetime mortgages already, up 90% on last year.

LGIM is now over GBP 950 billion of assets, with good inflows. LGC is well on its way to meet its full year realization target of GBP 250 million and has reinvested GBP 138 million. And LGI U.K. has shown good growth in its premiums, while the U.S. has risen to the second largest term insurance provider through the broker channel.

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

And onto the Legal and General Retirement to give context for 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.

This slide illustrates the 7 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 liability.

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 William Procter {BIO 15093363 <GO>}

Great. Thank you, Jeff. Good morning. Welcome to everybody.

I'd like to spend the next 15 minutes on LGR's credit portfolio. And specifically in the mechanics behind LGR's GBP 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 risks 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.

Our starting point is our liability cash flows. So a 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 defined benefit pensions in the U.K. 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 U.S. dollar-denominated or euro-denominated assets. And we will use cross-currency swaps to hedge the FX risks. Our portfolio of swaps is diversified across counterparties and daily collateralized.

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 risks.

The portfolio of assets backing LGR's promises to pensioners is a globally diversified investment-grade credit and Real Assets portfolio. Our main defense 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 sum to GBP 2.1 billion. The size of this reserve is based on analysis of historical defaults as applied to our actual portfolio, with the prudent buffer to allow for how default rates could develop over the long term. We have a further GBP 0.6 billion held as an additional reserve to absorb short-term shocks.

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.

We have a defensive and well-diversified asset portfolio. The (bond of) portfolio has an average A; rating, with over 2/3 of the portfolio A-rated or better. Over half of the portfolio is invested in government bonds, utilities and infrastructure. We have GBP 7 billion alone in gilts. We currently have less than GBP 2 billion in bank debt, including negligible sub debt, GBP 2 billion in energy and nothing in European peripherals. As an example, we estimate that around half the investment grade energy sector in U.S. dollar and sterling-denominated bonds would need to default before default losses will 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.

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 U.K. 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 for this matching adjustment compliance. 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 times spread over LIBOR. Both measures are described in the investment management agreement that defines LGIM's mandate. Fund management performance is assessed against these measures. This ensures a continuous focus of avoiding downgrades and defaults while remaining invested.

There is a symbiotic relationship between the investment of assets on L&G's balance sheet 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 sheet mandates 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 technicals that couldn't be achieved by an on-balance sheet capability alone.

All together, LGIM's active global fixed income team has 80 investment professionals based in London, Chicago and Hong Kong, managing GBP 135 billion of assets. Roughly half of 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 3 and five years.

Real Assets, led by Bill Hughes, has 79 investment professionals, managing GBP 24 billion of assets, with GBP 19 billion in real estate and GBP 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, sale leaseback and income strip transactions when it became clear to us that direct investments will become important for success in managing annuities.

The team's property funds have 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.

LGIM's investment philosophy and process supports the defensive nature of LGR's credit portfolio. It is grounded in macro themes that LGIM believe will persist, such as a secular decline in global growth due to an aging demographic and government fiscal burdens, with the consequence of a shift to antiestablishment 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 issuer that sees the defensive positioning through the day to day name-specific fund manager decisions. As a result, I'm pleased and grateful to LGIM to be able to present such a bell chart of actual default losses for the LGR portfolio for the last 10 years. We lost GBP 25 million in 2008 and nothing since.

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

Broadly, the credit reserve can absorb 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 over the year as around GBP 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 GBP 10 million of defaults in the year, the GBP 2.7 billion credit reserve would reduce by GBP 10 million and future net release would reduce by less than GBP 1 million. With GBP 100 million of default loss in a year, the credit reserve would reduce to GBP 2.6 billion and future release would reduce by around GBP 8 million in the following year. With GBP 700 million of default loss, the reserve would reduce to GBP 2 billion and future net release would reduce by GBP 58 million in the following year. These simple scenarios illustrate the smoothing impact of the credit reserve.

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 in the chart shows the rate of downgrades.

I'm sure I'll oversimplify what happens. But the period exhibited significant stresses in 2 sectors, an emerging market default and a few large idiosyncratic defaults. Technology, media and telecoms was worst hit as the dotcom bubble with debt-fueled 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.

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 BBB-rated assets.

This stress disregards any defensive sector positioning, or defensive stock selection decisions or any ability to capture management actions. The default loss assuming a 40% recovery rate would have been just below GBP 300 million, leading to a reduction in credit reserve to GBP 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 GBP 46 million in the following year, which corresponds to around 3% of the L&G group net release.

We've also worked through the impact of a 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 GBP 4 billion of surplus Solvency II capital before taking any management actions.

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 {BIO 17956222 <GO>}

Thank you, Kerrigan. Good morning, everyone.

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.

This chart sets out the main financial risks 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 through our 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 group 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 defense, 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.

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.

Now we understand that despite the best endeavors of the first-line teams, credit exposures will not always perform as predicted. So to give you a flavor of the activity of the Credit Risk Committee, let me give you 3 examples of how we control the downside of different unexpected outcomes.

As Kerrigan explained, it is important to remember what the unique illiquidity characteristics of our new annuity liabilities mean for the credit risk taken in LGR. We are less interested in changes to the price or spread of the assets. We are 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 of issuer level. The tolerances and exposures against the tolerances are actively reviewed to take account of changes in the external environment.

Thirdly, we recognize 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 are 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 that portfolio to anticipate these risks.

In particular, we monitor closely the overall average credit rating of the portfolio and the potential for downgrades to our BBB holdings under the scenario. This activity independently tests that the business have developed mitigation strategies and contingency plans for a range of scenarios. Solvency II requires onerous capital requirements for lowly rated credit assets. So it focus its management on mitigating downgrades and ensuring diversification.

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 fits within my second-line function independent of the dealmakers. 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 rating agency methods. This is important as we use the rating agencies' 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 would apply reductions to ratings where we believe appropriate.

The Brexit (inaudible) process, an 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 foresellers of credit.

With that, I'll hand back to Jeff.

Stuart Jeffrey Davies {BIO 20023574 <GO>}

Thank you, Simon.

So you've heard all of the detail. And I just want to conclude. We've demonstrated the ways in which we have very effectively managed and continued to manage the risk on our credit portfolio. We have 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 are confident we would be well placed to continue to perform and capitalize on market opportunities.

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

Questions And Answers

Q - Andrew Hughes {BIO 1540569 <GO>}

Andy Hughes from Macquarie. So I kind of -- just want to kind of focus on IFRS. Is that largely because of transitionals or is that why you kind of focused the presentation on IFRS? Because I guess I'm more interested in Solvency II. In particular, the kind of breakdown of the matching adjustment by the book in the assets. Because if I take a very high helicopter-level-view look at it. So what you're saying today is that the credit spreads as we know from the full year is around 180 basis points on the back book, 58 basis points was fundamental spread, the rest is matching adjustment. So I take that on your GBP 49 billion of assets, that's roughly about GBP 900 million. So what you're seeing is, in any really stressed year, you're never going to lose the credit spread. So this stuff is just free lunch. And I'm not sure that I kind of understand the kind of relative high-level view in comparing those 2 numbers. So I guess what I'd like to do, if it's possible, is to go through the 120 basis point matching sort of adjustment and just work out where you earn that 180 basis points. Is it an average cost portfolio 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.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Okay. I'm sure Kerrigan and Simon both have views on that one. But I mean, in terms of question around focus, we give but equal focus, certainly, on the IFRS and the Solvency II, showing both the impact on release of reserves and the in ins and then the impact on the Solvency ratio and the quantum of capital that's left, the GBP 4 billion. Yes. We assume there would be some more questions on the detail of the sums, too. And we're comfortable taking that way. Kerrigan?

A - Kerrigan William Procter {BIO 15093363 <GO>}

So I think, just coming back to the point. And a follow-up on Jeff's point, (always a plate) of questions -- the main questions that we were asked after the previous sessions around credit default reserve and some of the mechanics of that. So definitely, hopefully, I can give 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, around about 25% of that 30% shift downwards from downgrades, really severe downgrade scenarios. So a huge shift down from BBBs to BBs and 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 of the spread that you can get as those assets downgrade and some comes from an increase in the SCR due to stresses 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 delve into that in the future.

A - Simon Gadd {BIO 17956222 <GO>}

Can I maybe just add -- just to make sure we 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 owned 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 in Solvency II, holding a best estimate view, which is set predominantly by IOTA 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 to say that's supposed to be driven by the best estimate view of what we think is going to happen. And in the case of Solvency II, it's to some extent described by the rules.

Q - Andrew Sinclair {BIO 17749036 <GO>}

It's Andy Sinclair from BofA Merrill Lynch. Just 2 questions, please. Firstly, just can you tell us just a bit more about how you would actually expect to be reacting if you did get to a serious default cycle? Amongst other questions, if you did see defaults as 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 minimize downgrades and defaults. Can you give us a bit more detail on this and just how that ties in with the buy and maintain mandates? 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 and higher investment-grade ratings?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Sure, thanks. I'll start off from 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, know what we physically did, whereas opposed to setting the balance sheet. And yes, Kerrigan is very well placed on the buy and maintain.

I mean, in terms of what we would be doing in a default, yes, there's caveats and assumptions within there that we've assumed that is the approach the board would take, et cetera. But as a management group, we're certainly comfortable with the level of prudence that GBP 2 billion as an underlying level of prudence there is required, the GBP 700 million has been built up for historic reasons. And as illustrated, we're confident we could release that default reserve. And that the GBP 2 billion still shows sufficient prudence over where our best estimate is on an ongoing basis. So we wouldn't necessarily feel that we needed to reestablish at that point in time. I think then in terms of other management actions or things we did, as you say, you lived through it.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Well Simon lived through it, definitely. At the time, he was running LGR annuities at the time. Well I'll kick off. And I'm sure you can complement from both lines. Probably, Andy, if I come back to your second point, which somewhat describes what actions we have taken in that kind of stress scenario and, indeed, things we have done. So the switch in the mandate in 2010 -- before that, 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. One of the things that, 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, in -- over 2009 and 2010, we've 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 skill sets to avoid downgrades and defaults. So the primary measure -- when you think about the sorts of mandates, it's -- you win assets, people give you assets, you buy the portfolio -- on average, A-rated assets that you want at outset. 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 derisk the portfolio. So the primary measure the fund managers have. And 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 everyday, they're thinking actively, alpha-generating fund managers have all the input to say, well, I've got this portfolio, what could I continually upgrade through reduce by default risk provision? Because that's how I'm assessed, incentivized, all those others things. So what that really means is, firstly, they're agnostic about sectors. We have this sector overlay 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 (Antoine), the Chief Risk Officer, or (Tom Pavlich), who runs our portfolio, they have a list of preferred bonds that they would continually look to move out of into bonds they feel are more secure while preserving the portfolio yields. So it's a continuous, if you like, list of -- in order, of things I'd like to remove to things I prefer to move into as markets develop continuously. It's a pretty low-turnover portfolio, about 15% to 20% portfolio turnover. So relative to your alpha mandates of a couple hundred % or more. So it's a very low kind of shift from that lift -- 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 and it's gradually moving our banks are now having less than GBP 2 billion in banks, nothing in European periphery, nothing in sub debt. So there's things moving out the portfolio from 2010 onwards, you get to that position that where we are now with a super-defensive portfolio. Does that give you a bit of a flavor for what we're doing.

Q - Greig N. Paterson {BIO 6587493 <GO>}

(inaudible) I'm Greig Paterson, KBW. Looking at Slides 27 and 28, which is your 2001, 2002 scenario, 3 questions. The one is just -- it's a question, if my understanding is correct here. We've got 260 of defaults and the annual reduction in the release is 46. Your duration on your annuity book is 12 years. So are we looking at a PV cost of GBP 750 million roughly? Is that logic correct? And 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 sort of 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 GBP 750 million and then the (lightness) of your own default adjustment. 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 a minuscule amount 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 costs of your credit exposure.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Sorry. Just to come back on the second point, you mentioned risk margin, we are talking there about the IFRS balance sheet.

Q - Greig N. Paterson {BIO 6587493 <GO>}

No. I appreciate that. So what I was saying is, I do appreciate what this is an IFRS and I -- the PV, it should be around GBP 750 million. I'm just taking the default times the annual reduction in the release times the duration of 12 years, which is 12 or 13. So it gives you GBP 750 million. That's the PV on the IFRS costs. The rest will go down through a variance and (so much for) NAV will be hit by. And the second question is on 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. Then the third one is, in terms of economic costs, what's been the cumulative default costs since 2008 -- since the credit crisis?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

I think poor Kerrigan, they are all for Kerrigan. And I think explaining the GBP 46 million answers the first question. And I think the 3%, we understand.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes. So let me just -- so just to embellish some of the things I said there in the charts, just to make sure it's not -- if it's clear. So GBP 260 million and the other certain (inaudible) analysis went to get that figure so that's a straight off the default reserve absorption there. Then why that figure is a bit higher than some of the previous scenarios, it's because there were substantial downgrades at that time. So we effectively, when we look at the long-term default provision, we have an expected level of default to 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 has lessened. So that reduction in the release of prudence is GBP 46 million. So I think you've got the point there. (inaudible) Roughly 12 years, yes. I mean you've got a tail. I mean, as you know, while you've got a tail and so there's an impact over life. And of course if LGIM -- all this -- all that analysis relies on LGIM not doing any better than expected, of course, all the preamble was to say that 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 a 12-year duration. So that's broadly right, I think, they agree.

On the risk margin, that didn't come in to our IFRS. It's not a feature of our IFRS balance sheet in any way.

Q - Greig N. Paterson {BIO 6587493 <GO>}

(inaudible) take that GBP 750 million. GBP 750 million is the IFRS hit. To me, the economic cost is 2%, 3%. And it's because of the risk margin, which is the market's interpretation of the existing cost of showing a high risk (inaudible)?

A - Kerrigan William Procter {BIO 15093363 <GO>}

Well what 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 GBP 4 billion of surplus and 150% solvency coverage ratio. So that impact there, that Solvency II impacts incorporates all the dynamics of the Solvency II balance sheet with this 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. 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 that -- we're suggesting we're comfortable with that 150%.

Q - Greig N. Paterson {BIO 6587493 <GO>}

Then last one is, let's keep on the IFRS (inaudible). What's the cumulative negative variances associated with downgrades from 2008 to '09? It will be in the billions, I assume.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Well you will have seen -- I'm just trying to figure that through. I mean you will have seen the actual defaults and you will have seen the outturn over the years of PBT and (off-profit) hence investment variance, which will incorporate all 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 there for what economic costs you're thinking about. But it's all been transparent. Whatever has happened in terms of PBT has all flown through and you've seen it all visibly going from the 2008 portfolio through to the...

Q - Greig N. Paterson {BIO 6587493 <GO>}

My point is (inaudible) I think the company has put (inaudible). So the income -- the cost is actually in the downgrades. And so to me that's misleading in the sense that you have managed your book well. But it has that significant defaults over the period and you can see it in the negative variances coming through. I mean. And actually...

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Again. So just on that, there is figures that Nigel and I have spoken about around that. So we talked about -- for an example, 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 GBP 100 million last year to just improving the credit position of the portfolio. But we certainly wouldn't have what's the cumulative that we have done around that. As Kerrigan said, it's day-to-day business management of that portfolio, decisions made between LGR, between LGIM, when we want to upgrade the portfolio, what we think it looks like. When which of these lists of names are we moving, et cetera. But that -- 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.

Q - Oliver George Nigel Steel {BIO 6068696 <GO>}

Oliver Steel, Deutsche Bank. So 3 questions. First of all, just going to 2001, '02 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, since you said it was pre-management actions. Then the third question is really just trying to sort of get the basics in my head right. So the GBP 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?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

So the last one's quite easy. The release of the reserve wouldn't be -- appear at all in the Solvency II. So it would just be, you would see whatever market movements (were the) 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...

Q - Oliver George Nigel Steel {BIO 6068696 <GO>}

So I thought that you said that, that was a similar reserve in the Solvency II (inaudible).

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

No. It's not a reserve. It's just a mark to market of the calculation. So you recalculate -- restrike your best estimate with the 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 they all moved and not a lot has happened in the balance sheet, (meaning) you have the sensitivities on those where we look at them. But yes, the management actions, we do have a long list on those.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes, yes. I mean, just in terms -- just to be precise. Yes. It was just the credit side. It wasn't -- so 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 into picking the sectors, the issuers. And did nothing over that 24-month period. But it's purely credit only. It's purely isolated credit only. It wasn't the full 2001, 2002, everything that happened over that period with equities.

Yes. 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 you -- before they downgrade. But indeed, after they're downgraded potentially. But that continual mandate of recycling those assets into your broader A; portfolio. And the effects of those management actions that we thought about over the two years, will probably end as (around) 150%, they might be 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 management action over that period will be across the portfolio management that you're looking to apply.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Yes. Maybe just to add particularly on -- in that stress. You can see there's quite a lot of names that get downgraded to some investment grade and actually even down to sort of single B and CCC 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 will be some fairly obvious management actions that could improve through that number quite materially.

Q - Unidentified Participant

This is (inaudible) from Morgan Stanley. I have 2 questions, please. So first of all, looking at scenario 6. You obviously described this scenario as a 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 for the 2 calculated capital requirement? And secondly is the -- I'm just curious, given your track record in the managing the credit portfolio, would actually rerisking your portfolio something on the table? Because I noticed that you got 26 -- 23% still in the (cubby). But you have very excellent capability in managing credit portfolio. So just curious.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Just on the last one, I'm pretty sure Simon will want to talk about the first one. The -- on the rerisking, I think we took quite a lot around, wanted to improve and increase the proportion of direct investments, last-time mortgages, et cetera, back in the portfolio that would obviously use up more of that. You may or may not consider that rerisking. It's certainly balanced against the corporate -- equivalent corporate bond rating. But luckily, Kerrigan is 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, that direction of travel is to increase that proportion. And you may or may not call that rerisking. But certainly we think that gives a better risk-adjusted yield for the portfolio and optimizes between IFRS and Solvency II overall.

A - Simon Gadd {BIO 17956222 <GO>}

Yes. So you're right to say there have been much worse times in history than 2001, '02 for spreads. The worst time in history was 2008, '09. So in our capital modeling, we assume that we had a combination of 2008, '09 for spreads, combined with 2001, '02 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 in the -- within a -- 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 a capital allowance that we make on the balance sheet. So now that's irrespective of what we actually would do in those circumstances. We would -- and getting back to that previous question, in 2008, '09, we took our time. 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 normalize before we took any action. So yes, it's a combination of 2008, '09 and 2001, '02 that makes up our capital.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

And I think that's important around the prudence on the IFRS and the plus more than GBP 4 billion that we're saying in those scenarios around Solvency II that it allows us to take our time. We're not foresellers and we're able to capitalize on new business opportunities, which is also what we did after 2008, 2009.

Q - Andrew John Crean {BIO 16513202 <GO>}

It's Andrew Crean, 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-star 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? Then secondly on your trading, the GBP 1 billion of BPAs looks quite low relative to an expected run rate. I realize this is lumpy. I realize it's second half biased. But what's been going on in the market? Because it does look slow for everyone.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

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 sort of 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 that out between the different asset types. So we -- I wouldn't have that at my fingertips in terms of what the assumptions are. I know what underlies what we put in the solvency II in the IFRS. But that's slightly different for those assumptions.

A - Kerrigan William Procter {BIO 15093363 <GO>}

I mean that implicit number, the 19, 20 clearly varies by credit rating of the asset.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Yes, completely, yes.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Or it depends on the mix of assets in the direct investment portfolio versus the mix of assets in the trading portfolio.

Q - Andrew John Crean {BIO 16513202 <GO>}

IFRS versus the assumption would be higher than the (inaudible) assumption?

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Yes, yes. That's the 50 ...

A - Kerrigan William Procter {BIO 15093363 <GO>}

55.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

The 55 basis points.

Q - Andrew John Crean {BIO 16513202 <GO>}

You talk about that. But again, across the whole portfolio? Then, yes, in terms of volumes?

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes. Just to finish that point. So below the line, i.e. the about GBP 100 million-ish that -- which is the expected defaults. And then above the line, call it GBP 150 million-ish, in the prudent release and the net release. So that's kind of the impact of the full reserve in those 2 elements of the line. So you got the wider prudence, GBP 150 million. And you can kind of work out the combination of short-term reserve and the long-term reserve. And then that expected defaults 20 basis point-ish, lots of caveats for having that then, that's the figure at the bottom. The DI portfolio is broadly this similar, same weighted average rating factor, particularly when you add lifetime mortgages. But what we really expect to see with that is that, if anything of it the problems have much better recovery rates. So hence, all the security, collateral covenants that we're seeing there. I mean, I've got a figure in my mind, I don't know what would slow us 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 debt will be in. And senior secured, which most of the direct investment will be structured a little bit like senior secured. So you look at recovery rates there. Typically in the banking market be 40% compared to -- loss (inaudible) 40% compared to 60% would be typical. But so we'll be looking at something that or better as a senior secured-type asset on the direct investment side.

Q - Andrew John Crean {BIO 16513202 <GO>}

The yield?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

So the yields, we look at, like I say, is be careful for competition reasons. But I mean, bear in mind, if you have a senior secured asset, compared to a senior unsecured asset and you're getting the same yield, you certainly take the secured because we are not worried about illiquidity risk. But we're typically at 50, 50 to 1 50 over the equivalent more liquid traded assets, that kind of level in terms of the yield of the credit, yes. Just in terms of trading volumes. So we're looking at -- just to put in context, over GBP 1 billion, GBP 1.4 billion year-to-date on the bulk side. If you recall, last year, we wrote GBP 3.3 billion of U.K. bulk annuities, Aegon, there were GBP 3 billion on top of that, the GBP 3.3 billion of U.K. 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 what I will characterize the U.K. market relative to the U.S. market. In the U.S. market, all the action seems to happen in Q4. It felt like it was more orderly across the year in the U.K. 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 is a trustee cycle of strategic review at the start of the year, going to summer holidays and come back and want to get something done. So there is real evidence that there's something seasonal in terms of H1, H2 developing in the U.K. bulk market. Don't take that as any promises to what will happen in the second half of the year. There is plenty of pipeline out there. But and 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 GBP 1.4 billion so far this year compared with last year.

Q - David Bracewell {BIO 16394801 <GO>}

It's David Bracewell here from Redburn. Just one question. And it's on the on the nontraded portfolio in a kind of a default to a downgrade scenario. Just wondering how -- what process you go through in terms of rating that kind of -- the 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, et cetera, et cetera? How that works? And what kind of flexibility you might have?

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes. I mean Simon can -- at the risk of repeating (but certainly), that was some of the area where it's fully independent, the process, that is fully reviewed. We obviously did that post the Brexit vote last year where there was discussion around property, et cetera. And the linkage to that. So those are constantly reviewed on an ongoing basis. I think, yes, Simon will be happy to talk about that.

A - Simon Gadd {BIO 17956222 <GO>}

Yes. I mean it's an active part of the management process. So effectively, the internal rate committee at least yearly. But obviously, 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. Effectively that effectively means we have to start provisioning more within both the reserves and in the capital requirement. 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 of potentially that asset. And in the most extreme situation, we're involved in the workout and potentially taking ownership of any security that we have. But it's a, yes, a very active management process. It's fair to say we haven't gotten many assets in that situation. So we haven't had to do that very often at this stage. Kerrigan, you can pick up the lifetime mortgages.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes, of the lifetime mortgages, a similar process. So we have the portfolio of lifetime mortgage loans to make the match adjustment efficient, we structure them in a special purpose vehicles and issue notes out of that vehicle those are rated -- predominantly over 50% of the notes are AAA-rated then you have got AA, A and then BBB. Tranche of those notes that we issue from the SPV back in the lifetime mortgages, all those notes go through the same internal rating process. We took a lot of advice externally from on how to rate those and the same internal rating team put those ratings on through the same independent process.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Interestingly, that's one of the management actions where you have, okay, the economic risk hasn't changed. But we could put more assets into the one of those SPVs to maintain a better Solvency II position, because we could maintain the ratings on the note that we've created internally. So that does give us, again, extra flexibility. None of that is reflected, obviously. Alan?

Q - Alan Devlin {BIO 5936254 <GO>}

Alan Devlin from Barclays. A couple of questions. Just a follow-up on the direct investments. As you do increase the proportion of your investments in direct investments, how does that change the stresses? Is there any meaningful change or is it all rounding? And how actually did you distress the direct investments in your 2000, 2001 analysis?

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 the market just (inaudible) what comes in your (inaudible)?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

So 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 Moody's transition matrix from 2001, 2002 multiply them together and just applied that to the ratings of the portfolio. Look to the downgrades and applied a 40% recovery to that. So it was very naÃ¯ve test just to make it a completely -- here (sure to) test assume we have no skill whatsoever, this is just what would have happened.

Q - Alan Devlin {BIO 5936254 <GO>}

(inaudible)

A - Kerrigan William Procter {BIO 15093363 <GO>}

No, no, no. Which is exactly the point, the -- thank you for pointing me in that direction. Of course, as we look to move into direct investment with its kind of senior secured status more than senior unsecured with expected better recovery rates by design of the covenants and substantial collateral in securities 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, maybe true for infrastructure lending, I think you could argue that, certainly the (inaudible) did argue that that's yet to come in the U.K. So I think they've been arguing 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 is a additional robustness there.

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

And yes. Sorry in 2008, '09, there were names that you might have wanted to trade out of. But you couldn't. But the fact we would never -- we're 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 on to for a long period of time. Again, we would -- 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 of -- a heightened risk of default. But actually, it was quite interesting to see how a lot of those names that got very, very stressed in the period recovered very nicely. And it was the right thing to do to hold onto those names. So yes, that flexibility we have got as to when we trade is a key advantage.

Just a couple more questions.

Q - Colm Kelly {BIO 19140684 <GO>}

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 or the process around that given the restrictions that are on the matching adjustment portfolio? The second question. So you obviously have shown the percentage of downgrades in distress, if you think back to that scenario in '01, '02, it was probably as many bonds that were drawn 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.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Yes. 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 with swaps to make it right really tight across the curve. As 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 fulfill for the PRA. So there is no expectation there that tight ALM match, which is really why the ALM point as a precursor to the credit point is really important to understand. We're not forced traders at any point because of that match. So we feel pretty confident there. Of course, leading onto your second point, we may still want to trade out those because we have future credit concerns or possibly want to take some management actions on those. But definitely not forced to trade. The point around the mandate and we're really sort of going to in great detail about this buy and maintain type portfolio, it's almost exactly -- we didn't know what the matching rules would come out as. But it's almost exactly what the PRA specified, we've 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 match adjustment compliance for trading, et cetera, 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's exactly what you should be doing for a downgrading defaults (aware) type of mandates. So it hasn't felt like it has constrained us at all.

Q - Colm Kelly {BIO 19140684 <GO>}

Maybe to follow up on the withdrawn question?

A - Kerrigan William Procter {BIO 15093363 <GO>}

Apologies, apologies. 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. It's a really transparent naive test so that you could all re-create that yourselves if you so wished. And it's exactly that, 2 very visible transition matrices applied to the ratings distribution.

Q - Andrew Hughes {BIO 1540569 <GO>}

Andy Hughes from Macquarie. I just have 1 statement and 2 questions. I'm a bit surprised that 50% of the equity release portfolio has a higher rating than the U.K. government. I would have thought there would be a U.K. government cap on any equity release assets in the U.K. and you couldn't rate any AAA on that basis. The questions I guess are, on the 150% after 2001, 2002 scenario, I appreciate the comments that, I guess, several of the people have made, that doesn't feel like particularly onerous stress. But clearly, in that scenario, the business is more sensitive. So to say you have GBP 4 billion of surplus, clearly the scenarios and sensitivity test clearly all go through roof. So I would imagine that the target range, which you worked, it 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? And yes. So...

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

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

Q - Andrew Hughes {BIO 1540569 <GO>}

So the downgrade will not have changed the ratings?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

Not the ratings within an SPV like that. I mean, we would look at what's the performance from an equity release portfolio on the back of a ratings downgrade. But it shouldn't have an impact. It'll only be HPI modeling and everything else that flows into it, it doesn't impact it.

I mean, in terms of the GBP 4 billion, I mean, we picked, in conjunction 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 GBP 4 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 stresses and calibrations on top of the 1 in 200 events starting. And we're still saying we're at 150%. So I mean we've been pretty confident at that stage. We're never going to say, "and therefore the dividend looks okay," but you wouldn't think that 150% Solvency in a situation like that is a very robust position to be in. We would look at the sensitivity. They wouldn't hugely balloon. There would be other actions. And of course, there'd be a whole load of management actions that we 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 spreads 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 GBP 4 billion in 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 also don't think...

A - Kerrigan William Procter {BIO 15093363 <GO>}

I think you're right. We talked about a GBP 12.5 billion over GBP 8.3 billion-ish to get to the 150%. But that GBP 4 billion plus of capital is -- will really come from that really substantial...

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

And having taken no management actions. Maybe anyone else? One more?

Q - Unidentified Participant

We've been talking about the Solvency II model under scenario 6. Your S&P credit rating, AA, is one in 10,000 event versus the one in 200 event. And I mean, the risk is you have a downgrade in your financial strength rating, it has 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 credit rating -- your financial strength rating behave in -- under scenario 6?

A - Stuart Jeffrey Davies {BIO 20023574 <GO>}

It's a good question. You probably have to ask them they model (modes) in that scenario. But I mean, 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 are 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 down is it means it's very sunny out. And that it's a really nice day.

Anyone else? Should 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 your inputs 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.

A - Kerrigan William Procter {BIO 15093363 <GO>}

Thank you very much.