# **Company Participants**

- George Quinn, Group CFO
- Steve Wilson, Group Chief Actuary

# Other Participants

- Andrew Ritchie, Analyst
- Andy Hughes, Analyst
- Sami Taipalus, Analyst
- Thomas Seidl, Analyst

#### Presentation

## **Operator**

Ladies and gentlemen. Good morning or good afternoon. Welcome to the analyst and investor conference call and live webcast. I'm Sarah, the Chorus Call operator. I would like to remind you that all participants will be in listen-only mode and the conference is being recorded. After the presentation, there will be a Q&A session. (Operator Instructions) At this time, it's my pleasure to hand over to Mr. George Quinn, Group CFO. Please go ahead, sir.

## George Quinn {BIO 15159240 <GO>}

Thank you very much and good afternoon or good morning to everyone. And thank you for taking the time to join this call on the reserving information that we released yesterday.

Just to remind you that this is a webcast and that you should use the link on our IR page if you'd like to follow along with the presentation.

I'm joined here by the Group's Chief Actuary, Steve Wilson. Steve will take you through our approach to reserving. He'll give you some thoughts on the ways in which you can use the information. And most importantly, he'll draw your attention to some limitations or features in the data that you'll need to allow for if you're planning to do your own re-projections.

With that, I'll hand over to Steve. Steve?

# **Steve Wilson** {BIO 19265275 <GO>}

Great. George, thank you. Good afternoon and good morning to everyone. Thank you for joining the call.

So as George said, we've released a lot of new data, loss development triangles and so on and so forth. So I'm going to go through firstly just a quick overview of what we've published. Then I'd like to spend a few minutes talking about how we do reserving at the Zurich, the Zurich way of reserving. And then I'll turn to how you can use the data. We'll give you a couple of basic refreshers on chain ladders and triangulation methods. And then I'll comment on some of the key features in the data triangles themselves.

Firstly, the overview of the disclosure. We're providing premium claims information by line of business for our three major regions. That's Europe, global corporate and North America commercial. The data triangles are paid loss amounts; case incurred loss amounts, which sometimes is referred to as reported loss; ultimate loss vectors, if you like, that's the ultimate loss for each accident year; the corresponding IBNR reserves and the net earned premium for those years -- sorry, the gross earned premium for those years, from which you can calculate ultimate loss ratios.

We've segregated the data by our five major lines of business. You can see them there, auto, liability, property, specialties and workers' comp. And what hasn't been released is information on the countries in the international markets and MEA, Middle East and Africa. And simply because that's a lot of small countries predominantly and not much to talk about in the way of reserves. Farmers Re and Group Re, which likewise are not significant in the overall reserving context.

We released 10 years of data. So that's up to 2006 or back to 2006. So nothing for accident years prior and nor have we released any detail on the so-called legacy portfolios, which is UK disease and some APH in the US and one or two other bits and pieces.

What we don't provide, which we can't provide here as this is a higher level, are the assumptions we use in our own projection methods. But I will tell you how we do that. So hopefully you'll get some insights into our approach.

So turning to our approach, the Zurich way of reserving. This was established at the end of 2004, coming into 2005. So it's had over 10 years of being a tried-and-tested approach. It's globally consistent. We have one single Group-wide policy. We have clearly within that well-defined standards. And that policy is executed by accredited actuaries across the globe, all of them experienced and highly competent actuaries. And there's about a little over 200 reserving actuaries in the Group. So that's a lot of actuarial firepower.

We believe and we are confident that it's technically excellent. And we're going to talk a little bit more -- I'm going to talk a little bit more about what that looks like. But it's essentially around the way we cut the data. It's about the methods and techniques we use to analyze that data. And it's about how it flows through into our financial processes on a quarterly basis.

But equally importantly, the reserving information is central to our business decision-making and to providing business insight to our underwriting colleagues, management teams of the local units. We call that the virtuous circle, which is essentially the information that flows to and from the underwriters, the claims teams, the pricing actuaries and the reserving actuaries and, to some extent as well, our risk management colleagues and finance colleagues. But that's the key part of the way we do reserving at Zurich. And that ensures that it's embedded in the business.

And more comments, a central tenet of the Zurich way is that when we book our reserves for the current accident year, we allow for some degree of conservatism. This is just common sense and it's good practice. And with that degree of conservatism, we then expect that those accident years will run off favorably. And we recognize that favorable development as it comes through. But in a tempered way, i.e., we're not in a hurry to recognize good news. But we are in more of a hurry if we see adverse terms. And we react quickly to those. And you'll see and you saw in some of the experience we've needed to do that.

On top of the actuarial estimates, we have what we call reserve strength IBNR. This is a reserve to allow for potential deteriorations based on risks we see at both an overarching global level. And we do that using statistical models. And also at the more detailed portfolio level, where we'll identify specific risks and trends. We quantify those, we monitor them and we document them.

So to be clear, reserve strength IBNR is reserves for risks. So that's not our expectation. But it's potential things that could happen and so we hold reserves for those as well. Of course, we do have sensitivities which can be favorable. And we treat those in a similar way.

All of this is set within a strong governance framework. The reserve governance itself is part of our global risk policy, the Zurich risk policy. We have extensive internal peer review processes, whereby actuaries from one unit review the work of actuaries from another. That's a control process. But it also helps us get insights and second opinions. As you know, actuaries like to challenge each other. And we think that's very healthy for the way we do this.

We have -- frequently we have external reviews. Sometimes these are for specialist areas, where we need to get external information and make sure we are at best practice. And sometimes we have other parties, for example, regulators, who like to take -- who like an external firm to take a look.

And all of this is very transparent up through George, the CFO. And through Mario and through our Group Board Audit Committee. So we report to them on a quarterly basis so they can see exactly what's happening.

With that, all of those components, they constitute our approach to reserving, the Zurich way of reserving. And we think it has a proven track record. So we think that. But here is the track record over the last 10 years. And you can see the Zurich way has delivered in line with expectations in nearly all of those years.

It's fair to say 2015, from a P&L perspective, was a disappointment. But that is a function of the Zurich way. As I say, when we see adverse trends, we react to those in a timely manner. So that was a bad outcome in terms of our expectations for 2015. But a good outcome in terms of the balance sheet when we closed 2015.

And so far so good, 2016 shows us being back on track with a level within the range of our expected favorable runoff.

I'm going to take you through a little bit more of the technicalities. And firstly, what we do with data. I apologize if some of you find this to be a little bit basic. We just wanted to make sure we had everyone on the same page. But it's essential to all actuarial policies to try and homogenize the data. That means we segment it so it's within the country. Then within country, it's by customer segment, personal, small business, commercial, global corporate business. We clearly segment it by line of business, by distribution channel. Distribution channel can have an effect, whether it's broker business or direct business.

The data is grouped into time cohorts. So that's what forms the triangle. Predominantly for our business, being a direct insurer, that's accident year. That's not universally true; for certain lines of business we have on a claims-made basis, particularly in the specialties books, we cut it by reporting year. So it's a similar kind of method, just a different construct of the data.

Then within the claims data itself, we further subdivide that by size. We look at attritional losses differently than we look at large losses. We look at the causes of claims, the perils. We look at the status of an event, if it's a catastrophe, deductible levels, currency effects and so on and so forth.

So essentially, the data gets chopped up into very fine datasets, which make it better for analysis and for providing insight. And as I say, that insight is critical for underwriting decisions looking forward.

In terms of analysis, sometimes we get asked and sometimes I get asked what methods do you use? And the short answer is we use all methods, all available methods from the actuarial toolkit. At the heart of this, the foundational methods are chain ladders. Sometimes these are called link ratio methods or squaring the triangle. And we apply these to the paid losses and the incurred losses. And that's the data we've provided you.

On some lines we use claim count triangles. And we can develop average claim triangles and so on and so forth. So a lot of different triangles. And the chain ladders are, if you like, the starting point in how we analyze the data.

We complement these with more sophisticated methods, such as the Bornhuetter-Ferguson, which, as many of you will know, lends an a priori assumption of ultimate loss based on other information, for example from the underwriters, with the chain ladder projections. That is particularly useful for younger accident years, where the chain ladders have quite a high variability in their projections.

We use average cost per claim methods when it makes sense to do that. That would typically be a personal lines book, like a personal wholesale book. And the strength of average cost per claim methods is that the claim counts are usually quite stable to project. Then you can use other techniques to limit the variability and the average costs.

For cat, that's for catastrophes, we do bespoke specific projections. It should go without saying every cat is different. So we look at those very closely and have different approaches to how we deal with a windstorm or an explosion, etc., etc.

The methods themselves are then complemented by diagnostics, for example, pay to incurred ratios, which are a good indicator of changes in payment speed or can be used to assess if we've had an operational change within the claims department. Pay to incurred ratios can confirm those changes and also help us to adjust the ultimate based on that information. And all of this is monitored and back-tested so we can see if we're getting any bias in any of these methods.

Then finally, as I said, business insight is a core part of the Zurich way of reserving, through what we call a virtuous circle. And in that virtuous circle, underwriters, claims, colleagues and actuaries sit together and talk about the various factors that will be influencing the data and what is seen in the data and how we can react to that in our underwriting actions. So that would be, for example, market conditions, potential legal changes that would perhaps affect claim settlements, the actions by the underwriters. If we're increasing deductibles, that changes the claims patterns. And so on and so forth. And changes in claims process. If we change our reserving approach at a claims level, we need to know that. And that also affects the patterns in the claims data.

So there's three areas of segmenting the data, extensive analysis and business insight constitute the technical excellence of the Zurich way.

Okay. So now I'm going to turn to the data. And what we did, we asked our very bright actuaries in Zurich to have a look at this data and say lock yourself in a room for a couple of days and pretend you're an investment analyst. That was considered quite a choice assignment. And that individual had a look and came back and said, actually, Steve, there's a few things we should highlight and we're going to take you through those.

But firstly, let's just recap, again, that's a little bit basic. But just to be clear, let's talk about how loss development triangles can be used using the chain ladder methods. We're not going to go into Bornhuetter-Ferguson or other methods. But I think you can go a long way with knowledge of these chain ladders.

So the chain ladder has really six fairly straightforward steps. You can see that. Here's our European property paid losses that we've released to you. It's not the whole triangle. For this illustration purpose we've just cut it off at 2010. And we calculate what we call a loss development factor, sometimes called a link ratio. And that's simply the ratio between the accident year paid amount at development period N, in this case 3, divided by the evaluation at the prior development period, N minus 1, if you like.

You can see the calculation there on screen. So the development factor for period 2 to 3 for accident year 2013 is 1.132. So that means the paid losses increased by 13.2%.

At the bottom, we've shown you a weighted average. In practice, we look at a number of averages. We look at simple averages. We look at averages over recent years, say the last three or the last five or averages over all years. You can also project curves, extrapolate curves from the factors to see what is the underlying pattern. Then we select from that underlying pattern a series of factors which we think will be representative of future development.

So while we have that selected, we've just taken the average from the previous page in this simplified example. You can then do the reverse calculation that says for the paid amount in development period 1, as we've shown in the highlight. We would expect that to increase by 77%. And that would then go to 881. Okay? Then simply that process is iterated across the triangle, hence the language squaring the triangle. And that calculates the ultimate loss. And from that ultimate loss, we can calculate our IBNR reserves.

So I'm sure many of you are very familiar with this. We did think it's just a short recap would be helpful.

Now turning to the data, there are several -- as ever, with triangles, they're never as straightforward as you want them to be. And there's always things moving around and going on and things got changed and so on and so forth. So you have to make allowance for that in the projections.

We've highlighted four features. There are others. So we'll leave it to you when you have a look to see what you can see. And you can always call us if you see something that you don't understand and we can help provide explanation.

But these are the four that are most relevant. And firstly, in the auto book for North America, there is a distortion in the fifth diagonal. Now the diagonal represents a constant point in calendar year time. So this is something -- an operational change that happened in 2011, which affects the movement for 2010 accident year throughout 2011 and also the subsequent accident years, obviously at slightly later development periods.

And you can see from the factors there that we've highlighted, there is a much higher number, much higher factor than all of the years either preceding or post those development (sales). And this is because we had a systems conversion from a business we'd acquired some years before. And we converted the claims in the claim system from that business onto our main claim system. And the way the data conversion came over, it caused a distortion in the triangle.

So this is quite a standard data effect and it's quite easy to adjust for it. We simply, as we've shown here, ignore those development factors in the selection of the future development since that is a non-repeatable effect.

Secondly, we're looking at European auto. And you can see here, this is a little bit more subtle. But prior to 2011 or 2011 and prior, we have very strong positive runoff at the case -- this is the case incurred losses, strong positive runoff at the case level. This is to do with certain features, one of the key ones being the treatment of whiplash claims in Switzerland, which is one of the countries in

this dataset. Whiplash claims can be very expensive. And we would set up quite high initial reserves for those, which would then tend, in aggregate, to run off positively.

There have been changes in the legal system. It's harder now. There's a higher standard of evidence requirement to make a whiplash claim. So the whiplash claim impact has been reduced, which means that's better for us on a loss ratio. But it means we get less favorable development. And you can see that. And we've shown that if you take the average of all years, you get a certain level of development. But if you take the average over the last four years, there is less development. So in order to be conservative, we would recommend not using the factors that we've shown grayed out.

Again, this is a fairly standard thing we would see -- commonly we would see and anyone would see when you're looking at several years of history.

Okay. So now we're looking at the GL book for North America commercial. We're looking again at incurred losses. You have this in the data pack. You also have paid losses.

There's a composite of many different subclasses. So at this level, at this high level, it's one of the more heterogeneous datasets. But what we want to point out here is that the 2015 accident year loss at the end of 2015, that's at the end of development period 1, is unusually high. And as you know, we had high large losses in that year. And so we need to be careful in projecting that forward because the chain ladder, by definition, will just assume that that year develops like its predecessors.

But in this case, it won't. The thing is with large losses, they tend to be already at or near policy limits. So the future development will be less than prior years. So in projecting that using a chain ladder, you need to adjust the factors or use a different approach, for example, the Bornhuetter-Ferguson.

And to show you what that looks like in an earlier year, again apologies for the slides. Okay. If we looked at 2010, accident year and (2009), at that same development period, the end of the first year, 2010 was significantly higher, about 30% higher than its predecessor. So a chain ladder used at the time would assume that differential of 30%, 33%, would flow through to the ultimates.

But as you can see, at the end of period 6, in fact 2009 is now slightly higher than 2010. So they develop differently. So that's a feature I want to draw to your attention. It's also true on the paid. And it's actually more exaggerated on the paid because the paid loss development has a steeper curve.

Okay. And finally, in these features of the data, we're going to talk about workers' comp tail. As you all know, workers' comp is a very long-tail line. And here's the development factor. Again, we just selected NAC. We have a lot of workers' comp also in global corporate. And we have of course workers' comp or its equivalent, employers' liability, in the European business.

There's the development triangle. And the question is what happens after year 10? This is a problem or a challenge that plagues actuaries all over the world. And from 10 years onwards you can see there's still going to be some development, with movements in the 9 to 10 period. But it's hard to tell what it is.

Now we have triangles going back 25 years. So we have another 15 years which we can use to estimate that tail. We haven't released that; we've released 10 years. But notwithstanding, you can estimate that tail.

There's a couple of ways you can do that. You can project or extrapolate those development factors. You can do that by simply looking at them and forming estimates on what you expect for the next few years. That's very basic but can be quite effective approach.

You can use curve fitting. So you could apply an exponential decay curve, for example. And that's readily done in a spreadsheet. Or you could look at another data source, for example, industry data. That will give you a tail factor for workers' comp. I'll just stress that it's important to take a workers' -- take the tail factor from the data and from the triangles in order to project that forward and assess where we are with our ultimates.

That's a tour of the triangles. I'm hoping we can get this next slide. Yes, I'm just going to talk to the next slide while my colleague tries to bring it up on screen. Here we are. This is a simple metric. So this is not something we use for projections. But it's a way you can view the reserve position from basic financial data. And we just want to say this is not really the most useful way of looking at the data. You can see it's very volatile. It's affected by movements in the reserve, by movements in the premiums. It's not responsive to mix changes and so on and so forth.

So we're just highlighting this. But as it stands, 2015 looks pretty good as this ratio, for what it's worth, is at the highest level in that 10-year period.

You can see I'm an actuary who's not used to technology. My colleague is helping me out.

So just to summarize what I've just said, we've got over a decade of the Zurich way of reserving. It's essentially unchanged. We've modified it here and there. But it's as good now as it ever was and I think the track record proves that. We're absolutely clear it's technically excellent. We've got a lot of actuaries. We know actuaries in the market. We know how the market operates. And there's nothing that anybody else does that we don't do. And frankly, I think we do it better.

We've provided you with extensive data, a lot of data triangles and the accompanying ultimates and earned premiums. And whilst recognizing that we look at the data in a much more granular level, you can still use that data to form a high-level assessment of our reserve strength. And so all of that leads us to be very confident in our approach and the adequacy of our reserves.

I think now we throw it over to Q&A.

# **Questions And Answers**

# Operator

(Operator Instructions) The first question is from Andrew Ritchie, Autonomous Research. Please go ahead.

# **Q - Andrew Ritchie** {BIO 18731996 <GO>}

Hi there. Thanks, first of all, Steve, for that presentation. And thanks for not getting into Bornhuetter-Ferguson on a Friday lunchtime. A couple of questions.

First of all, I'm not entirely sure yet about your external cycle of review, in other words, the cycle of external reviews. Could you remind us on particularly things like when you do your asbestos external reviews, when was the last time there was significant external reviews, particularly of US liability classes?

Second question, I'm just noticing there's very high ultimate loss ratios in 2015 for global corporate specialty and liability. Could you remind me what's the nature of those lines? They're particularly higher in specialty versus the US and European equivalents. What's the nature of those lines? Did

they receive particular attention in 2015. So the nature of global corporate specialty, global corporate liability and how it differs from the US? Thanks.

#### **A - Steve Wilson** {BIO 19265275 <GO>}

Sure. So the first question on external reviews, we have regular reviews for the US APH, which is in the GL book. We have a very detailed review every two years. And then we track on a quarterly basis the movements in the claims experience against those anticipated by that review. So it's biannual with quarterly monitoring. And if we see larger movements then we react to those.

We've had a series of reviews over the last few years, the last two to three years, on top of that, principally around some of the UK -- sorry, the US long-tail lines. So we've had quite a number of externals, maybe too many, looking at those books.

On the UK side for disease, that's the bulk of -- so the US APH exposure actually is quite small. It's shown later in the deck. Of course you'll know, Andrew, from the Eagle Star acquisition way back in 1998 that that brought in a huge amount of UK EL. I think we have gross reserve there is about 2.6 billion. That's also in the later part of the deck.

For that we do a bespoke review. It's very detailed. It's using the latest information each year. There's an annual review. We used all the updated information from the Institute of Actuaries in the UK. And that's including models and views from that working party. So that's looked at regularly. And again we track that on a quarterly basis.

And we also look as well to opportunities in the market if we can to de-risk that portfolio in particular. So I think that's your first question.

## **Q - Andrew Ritchie** {BIO 18731996 <GO>}

Sorry, could I just follow up on that? Were there more external reviews than normal last year on particularly US liability? That's what I'm trying to understand.

# **A - Steve Wilson** {BIO 19265275 <GO>}

Were there more than normal? I must say I was Chief Actuary -- as you know, I was Chief Actuary back in 2004 to 2007. We seemed to have a lot of reviews then. We seem to have a lot of reviews now. So I don't actually think there were more than normal. We did have a quite extensive activity in terms of external reviews following the Germany issues, which were coming to light in 2012. So that triggered a spate of reviews in 2013, 2014.

So I don't know if that's more than normal. I can't recall what was happening in the intervening periods. But I think to me it feels like we have a lot of reviews. There's no shortage of external reviews.

Can you remind me, please, on the second?

# **Q - Andrew Ritchie** {BIO 18731996 <GO>}

It was -- I want to understand the differences between global corporate specialty and liability and North America. I just noticed that particularly global corporate specialty has much higher ultimate loss ratios in the last few years than the US and Europe, both on the specialty and liability side. What is the nature of that business, or particular -- what have there been particular issues in those lines?

# **A - Steve Wilson** {BIO 19265275 <GO>}

Yes. So I think we're going a little bit into individual portfolios there. Essentially specialties is D&O. There's some marine business in there. It's professional indemnity. It's a real mix.

And over the years, we've had -- we had a lot of professional indemnity in the UK, for example. We've had -- we've got a lot of D&O business in the US and to some extent in Europe. So there's quite a mix.

Quite a lot of the specialties business is written out of the specialties business unit in North America. So that tends to be also picking up some of the larger customers as well. So I don't really know if I can give you the precise details. There's so many different covers within specialties and quite a lot of different customer segments. So I don't really -- I'm afraid I have to hand the detail of the performance of each of those.

### **Q - Andrew Ritchie** {BIO 18731996 <GO>}

Okay. Thanks.

## **Operator**

The next question is from Thomas Seidl, Sanford C. Bernstein. Please go ahead.

## **Q - Thomas Seidl** {BIO 17755912 <GO>}

Yes. Thank you. And thanks for a great presentation. Very helpful. First, on workers' comp, I look at slide 35, because you of course rely mainly on Schedule P as external data source. So you basically say. And this is in line with what we found, if you exclude the unallocated loss-adjusted expense, you are still slightly higher in terms of loss picks and you basically say this is due. And this is also available in the data, due to a higher IBNR. And you say this is due to the more conservative approach.

Now my -- I would have expected, if this was true, that your runoff of the workers' comp book should be materially better over time than the average market. But then I look at the data, for example, years 2007, 2008 and 2009, in those three years -- accident years, you increased from the initial loss pick more than 10% each year, while the market is basically neutral or even seeing reserve releases. So my first question is how does that fit together, the more conservative IBNR and loss pick initially. But then a worse development over time? I can't really square here the circle here.

And the second question I have is then when I look at the total US portfolio, based on 2015 data and Schedule P again, now 5 of your 10 last accident years have upwards, meaning a negative trend with reserve increasing. And other years are flat. So is it a fair assumption to say that the US reserve is running at very low buffers and so we should expect little runoff from those years?

And the third question, if I may, is more a model question now. Inflation of course plays a big role in your work. Inflation has come down a lot over the last years. And my question is, number one, shouldn't this lower inflation result in higher reserve releases? And secondly, how do you basically work with future inflation levels? How do you cope with the situation that you need to forecast 10, 20 years while inflation right now is very low?

# **A - Steve Wilson** {BIO 19265275 <GO>}

Okay. So that's -- thank you, Thomas. And that's quite a few questions. So you may need to help remind me on that as we go through the answer.

So Schedule P, the statutory return in the US, we have that data, as you've pointed out, on page 34. So there it is. That's a snapshot and I think it speaks for itself. This is just a matter of fact that

our IBNR percentages are higher than the industry and the peer group. So we feel comfortable we are in a better position than our peers.

In terms of individual accident year movements. And I'm sure my North American colleagues would agree, we try to get this correct and in a good position in the round. There's enough volatility at the portfolio level. We don't necessarily get every accident year precisely right; that's too difficult.

So the mechanism or the approach of the Zurich way of reserving is to look for the data class and make sure the overall IBNR is right. Some accident years will run off favorably and some accident years will run off unfavorably. That's, as I say, the nature of the beast. There is randomness in there. And that's a little bit what I was showing you with that GL triangle. So we can't precisely get every accident year on the button.

But what is important is getting the overall portfolio reserve across the accident years in the right place. And I think that's what the data clearly shows. And by the way, comparing against competitors, we're very happy with the way we do this. We don't cross reference exactly what's happening in our competitors' analysis; we rely on our own views.

I think that's your first question. Would you please remind me of the second question?

### **Q - Thomas Seidl** {BIO 17755912 <GO>}

The second, total US P&C ultimate loss ratio development the last 10 years, 2005 to 2014 I think is the data we have here, 5 of the 10 trend upwards, the total ultimate loss ratio. And the other 5 are essentially flat. So my question was it seems like the US reserve buffer is close to zero just by looking at the total runoff. Is that a fair observation?

#### **A - Steve Wilson** {BIO 19265275 <GO>}

No. If I may say so, I wouldn't say it's a fair observation. So we apply the same approach consistently across the Group. We have, as I said, our reserve strength is calculated in a rigorous way. So the estimates are calculated consistently and the reserve strength is determined consistently. So the reserve strength is more or less equivalent across all major regions.

There is a little bit, I should just say, held in Group Re as well, which is an umbrella reserve strength, if you want to call it that. So the US behavior is consistent with the rest of the Group. There is no difference.

You do get a difference from different lines of business. And to the extent that both global corporate and North America commercial are de-facto commercial businesses, they don't have the benefit of the more simply reserved lines of business. But allowing for the differences in mix, we are consistent across the Group.

Sorry, I'm going to have to ask you to remind me of the third question as well.

## **Q - Thomas Seidl** {BIO 17755912 <GO>}

The third is very simple. Basically inflation, with this dramatic drop in inflation, shouldn't we, number one, expect more positive runoffs right now, because clearly 5, 10 years ago when you reserved for this stuff, the inflation expectation then was much higher than it is today? And going forward, what do you do to avoid basically that your reserve now, based on very low inflation level. But in 10 years' time it turns much higher?

# **A - Steve Wilson** {BIO 19265275 <GO>}

Thank you. And thank you for giving me a simple question as well, amongst your questions. So yes, inflation is of course pervasive. I should just be clear, when we think about inflation form a reserving

perspective, it's not just consumer price inflation or earnings inflation; our inflation views and analysis are based on the specific portfolios.

So if we have, for example, a workers' comp book which has various components around medical costs or a GL book which has a lot of litigation potential in it, we need to allow for those different types of inflation.

The way we do that is because this is essentially a bottom-up process and the reserves are done at that very granular level, we can -- the actuaries reserving those accounts and also the pricing actuaries supporting the underwriters can look at inflation on a very specific basis and form a view on what it looks like going forward. So our inflation assumptions are granular and bottom-up and reflective of the individual circumstances for the portfolio under consideration.

As a matter of fact, if inflation falls lower than those expectations, you would, other things being equal, get positive reserve runoff. Clearly we're not anticipating a lot of future falls in inflation. And of course the converse is also true. But that's just part and parcel of the job the actuaries have to do. They have to form a view on inflation and how it will affect those reserves. And that's what we do. And to the extent we see any trends in one direction or the other, we will accordingly react to that.

## **Q - Thomas Seidl** {BIO 17755912 <GO>}

But clearly if you look, for example, at workers' comps for the last five years, inflation has come down. Why isn't there this visible then in the data that you have? You should be benefiting from lower inflation. Or would you say that inflation, as regarding maybe costs and so on, is not coming down as much as CPI?

## A - Steve Wilson (BIO 19265275 <GO>)

So it clearly has come down; that's not disputed. And it is reflected, if you look at those, way back on slides 5 or 6, with the proven track record, part of those large releases, which we've shown as a percentage number which -- so there, it's up on the screen now. So we had these really -- this is, if you like, a purple period of good reserve releases. That is in part the Zurich way doing what it's supposed to do.

But if you add up those in dollar terms, I think we have the number on there, \$7.7 billion. I don't think we had an \$8 billion surplus at the end of 2006. In fact I looked at what we thought our surplus was at the end of 2006 and it wasn't \$8 billion. So the part of that positive runoff is the Zurich way doing what we want it to do. And part of it was a little bit of a tailwind from falling inflation.

# **Q - Thomas Seidl** {BIO 17755912 <GO>}

All right. Thanks a lot.

## A - Steve Wilson (BIO 19265275 <GO>)

Thank you.

# **Operator**

The next question is from Andy Hughes, Macquarie. Please go ahead.

# **Q - Andy Hughes** {BIO 15036395 <GO>}

Hi. A few questions if I could. Basically the first one is on the case reserve. So I just had a look to see the things that look odd to me. I don't -- I think everyone looking at the numbers would probably find something that looked a bit odd. But the first thing which jumped out at me was when I looked at the European tab on the ultimate losses. And in particular the negative IBNR.

So if we look at, for example, European property for 2006, you've paid more than your current ultimate loss ratio. So you're factoring in quite a lot of recoveries. And you've got a big, negative IBNR that's actually bigger than the case reserve. So you're actually holding ultimate losses of less than your actual paid losses.

So in terms of your suggestion of using a chain ladder and ultimate loss approach, could you explain what's going on with -- basically I'm just interested in what's in the case reserves and how you get to these negative IBNR numbers.

The second question is these are all gross of reinsurance. What should we do to factor in reinsurance? In particular I was trying to look for global corporate, (Tianjin). And think about how I might adjust for that.

Then on the 2015 position you've given us, on the right-hand side of the spreadsheet, could we have those for 2014 and all the other years so that we can actually do a BF if we want to, because obviously if we do this, we're going to get the wrong numbers. Thanks.

#### **A - Steve Wilson** {BIO 19265275 <GO>}

Sure. And I'm going to come back on that last question in a second. And by the way, I learnt my reserving trade back in London for one of the big four consulting firms. And we did reserving for all sorts of people in the London market. So I know what odd looks like, believe me. There's plenty of triangles that look a lot odder than ours do. So this is relatively vanilla direct insurance.

But your specific question around property positive runoff. So the typical situation with property is that a loss adjuster will go an evaluate the claim and loss adjusters, obviously in conjunction with our claims teams, they tend to be conservative. It's relatively straightforward for them. I don't want to disparage the good work they do. But it's significantly more straightforward to evaluate fire damage than a medical claim.

So case estimates for property tend to be higher than the ultimate settlements. So that creates the positive runoff. There was a time, perhaps, when the actuaries would just ignore that and that would just flow through -- I'm talking about in the industry here -- that would just flow through as positive IBNR development effectively.

But that doesn't really work in terms of business insight. So we project through those positive runoffs that come through. So as the claims are settled, they settle at less than they were reserved for. Or on the paid, there will be recoveries, subrogation recoveries, which could be for all sorts of reasons.

So those negative movements, i.e. the reductions in the claims paid and claims incurred, we do project those through as well to some degree. And I say to some degree. And by that I mean this is one of, again, the principles of the Zurich way. We're a little bit -- and by the way, this is what all actuaries are like, pretty much -- we're a little bit reluctant to bring the good news through quickly. So we project some of those savings. But the property reserves still retain future positive runoff that hasn't been fully projected through.

# **Q - Andy Hughes** {BIO 15036395 <GO>}

I'm just wondering how I should model that, because, to be honest, I'm an actuary but I would really struggle to come up with an estimate for this line, which is less than the paid claims.

# **A - Steve Wilson** {BIO 19265275 <GO>}

But it's -- the method, the chain ladder method, can -- you can just input numbers less than one, right?

## **Q - Andy Hughes** {BIO 15036395 <GO>}

Right, yes. I suppose so. For year 11, I suppose, yes. Okay.

#### **A - Steve Wilson** {BIO 19265275 <GO>}

Yes. So mathematically it's symmetrical. We're happy to have a further conversation, if you want to, for us to discuss further how we do that.

## **Q - Andy Hughes** {BIO 15036395 <GO>}

Yes. That'd be helpful. Thank you.

## A - Steve Wilson (BIO 19265275 <GO>)

Yes. Could I -- and you had at least one other question.

## **Q - Andy Hughes** {BIO 15036395 <GO>}

Yes, on reinsurance. How do I adjust for reinsurance, because obviously these are all gross? So I'm just trying to work out, if I come up with a gross estimate for anything, what do I do with it?

## **A - Steve Wilson** {BIO 19265275 <GO>}

Yes. So it's gross to gross. So the reserves are gross. The triangles are gross. So everything's consistent. So what you can do is you can do these projections and then you will form a view -- you can form a view on what a projected estimate looks like against our held estimates at the gross level. And the difference between the two is effectively a surplus. So you can do that at a gross level.

The reinsurance effect, the netting effect doesn't really affect the surplus. We don't book seeded reserves that would -- we don't put surplus in seeded reserves, if that makes sense. So a net surplus is the same as a gross surplus essentially. That's the --

# **Q - Andy Hughes** {BIO 15036395 <GO>}

But do I need to pro-rata whatever surplus number I come up with though, presumably by the reinsurance proportion?

## A - Steve Wilson (BIO 19265275 <GO>)

No. No, you don't.

# **Q - Andy Hughes** {BIO 15036395 <GO>}

So there's no surplus for the reinsurance? Okay, it's taken off at best estimate rather than with -- okay. All right.

## **A - Steve Wilson** {BIO 19265275 <GO>}

That's right. That's right. And we don't buy a huge amount of reinsurance either. So there's much less seeded reserve perhaps relative to our peers.

# **Q - Andy Hughes** {BIO 15036395 <GO>}

Okay. Thank you.

# Operator

The next question is from Sami Taipalus, Berenberg. Please go ahead.

## **Q - Sami Taipalus** {BIO 17452234 <GO>}

Hi, everyone. And thanks for taking my questions. I'm going to take the opportunity to ask three as well, given that we haven't been limited today. And the first one is on your -- you talked about this IBNR sensitivity reserve, which sounded like it was basically a bit of a surplus held for sensitivity. Who decides how much that surplus is? Is that decided by the actuary and is that an independent process I suppose is what I'm asking.

Second question, you've given us quite a lot of data here, which is very much appreciated. And you've encouraged us to do our own work. But although this is also -- this is great but it's also a little bit dangerous, I suppose, because we could come up with some very different estimates. Wouldn't it just be easier if you gave us what you think the margin is? And is there any good reason for why you shouldn't give us the reserve margin? And don't say other companies don't do it because that's not a very good reason, in my view.

Then the final question is on the tail ratios you have on pages 36 and 37. If I've understood correctly, this is basically the ultimate of the paid or the ultimate of the incurred for the 2006 year - sorry, for the 10th-oldest year and how that's developed. Could you just give us a little bit of comfort about how prior-year reserves. So for (2015), 2006 and older -- sorry, for 2005 and older? Can you just give us a bit of comfort on the strength of those years and how you benchmark that strength? Thank you.

#### **A - Steve Wilson** {BIO 19265275 <GO>}

Sure. And I think I'm going to answer one and three and George might pick up on answer -- on question number two.

#### **A - George Quinn** {BIO 15159240 <GO>}

Thank you, Steve.

## A - Steve Wilson (BIO 19265275 <GO>)

In a second. So I think the question first was what we call reserve strength IBNR, how do we determine that? That's determined by the actuaries. The whole process that's consistent -- the approach for reserve strength determination is consistent and the same as the approach for the central estimates. And that is that the actuaries do the calculations. We have various levels, obviously we have the actuaries in country reporting through to the regions and then reporting to Group.

And that process is -- so let me be clear on this, the estimate, the central estimate is what we think the reserve would be if things run off in line with expectations. So that in and of itself is an adequate reserve. And of course, as I'm sure you're aware, then we have lots of questions about best estimates with auditors and stuff like that.

The reserve strength then is evaluated based on broadly two things. One, what are the overarching potential risks that would come from, say, parameter error, which would be the statistical noise in the system. So now we're talking about a range around the central estimate. And obviously we're looking at ranges above the central estimate. And we have a statistical model that does that. And if anyone's interested, it's a log-normal curve in its most simple form. But I don't propose to go into any detail on how we do that.

But is like -- gives us, if you like, if you're familiar with the terminology, a probability density function. Then we can calibrate where we want to be on that probability density function. So the central estimate is around about 51% and we book to a number which is quite a bit higher than that.

The second part of the reserve strength, as I said, is around specific portfolio risks. And these can be for very many different reasons. And it can simply be, for example, we have some unclarity in the data and the actuaries just want to be a little bit further up the range whilst the data patterns emerge. And that can happen, if we put an account into runoff, for example, sometimes the claims development will change because we've exited that line of business, or we may have taken a different view on the case reserves.

And we have a central estimate that says, well, this view will give us that. But we have a higher degree of uncertainty. So let's hold a sensitivity pending that uncertainty being resolved. So that is all an actuarial calculation or calculations. And that comes up. It's obviously subject to our governance. And that's what comes through when I would sit down and present these numbers to George and then onwards into Mario and the Audit Committee.

So that's how we get to reserve strength and that gives us protection against adverse deviations that could happen but that we don't expect to happen.

## **A - George Quinn** {BIO 15159240 <GO>}

I'll do number two and I'll remind you that the last question is about 2005 and prior.

On the data, Sami, I guess the issue would be that if people were happy to accept my assertion that we have adequate reserves and we have a surplus above the actuarial best estimate, we wouldn't even have this discussion in the first place. And what we're really trying to do here, alongside demonstrate consistency in the delivery of PYD in line with what we've guided for, is to give you additional information so that you can arrive at your own view.

In terms of the risks that come with that, absolutely, people can take a wide range of -- it's very judgmental. So you can form a conclusion or you can make an assumption that could be very different from the ones that we've taken.

But the thing we've tried to do ahead of this. And Steve mentioned it earlier on the call, if you follow the guidance that Steve has given you around some of the issues in the data, we think if you take one of the assumptions that fall within a reasonable range, we have a clear idea of the picture that we believe you'll see when you've done that. And of course we expect that to support the assertion that we've made.

It can be that you can look at workers' comp and you can decide that the tail factor shouldn't be the industry number, it shouldn't be the exponential decay number that's in the curve; you may have your own favorite number, in which case you'll get an answer that we haven't allowed for. But I think for most people, I think if you follow the approach that we've outlined, if you make reasonable assumptions, you'll get different answers, each of you. But we think the overall answer that you'll get will be consistent with what we've told you.

Having said all of that, the most important thing is we actually deliver what we've said we're going to do. So we can talk about how we reserve and what the numbers are and what the numbers mean. But I think for most people, the comfort really only comes from consistent delivery. And that's what we're aiming to do.

# **A - Steve Wilson** {BIO 19265275 <GO>}

Okay. So question number three. And I'll answer this and I think we can take one more question after this, by the way. So accident years earlier than these triangles. There's about \$6.6 billion of reserves. That's aggregated across the Group.

Of course the older a year is, the more certain the reserve is. So that \$6.6 billion is quite a big number. But that's the aggregation of a lot of small reserves which we are -- which don't have a lot

Really the interest in those old years, the only real exception there of any significance is workers' comp. And we've talked at length already about the tail factors. Really those -- we don't really do much with those old accident years other than comp, where we use, as I said, another 15 years of history to look out. So we've got 25 years. So we can really look at what movements could happen in the tail.

Then just to make -- so really the accident years of 2005 and prior isn't really of interest in terms of reserve strength just by its nature.

Then just to make perhaps the obvious statement, when we're doing a workers' comp triangle, we're projecting movements that actually relate to business that, in some cases, is 25 years old. And what 25 years will be -- will be past -- certainly past my working lifetime and probably many of us on this phone. So just to remind ourselves that there is a sort of abstract nature to what's happening out in the tail.

## **Q - Sami Taipalus** {BIO 17452234 <GO>}

Okay. That's fine. Just coming back on the first question a bit. So when you -- I think yesterday you talked about increasing reserves a bit in Group Re. So that was related to increasing -- that was an increase relating to a specific sensitivity or --?

### **A - Steve Wilson** {BIO 19265275 <GO>}

Yes. So there's a question here about where we would hold reserve strength. As I said earlier, we try and match it up to where we think reserve risk is. And so hence we have a consistent positioning across the businesses.

Of course, it's a bit like Thomas's question earlier on accident years. These things are moving around all the time. This is a dynamic process. So at any one point in time we have a view on where we should hold our reserve strength. But as each quarter goes by, that gets shuffled around a little bit.

And Group Re is a central unit. It's a good place to put, as you've just alluded to, to put non-specific reserve. But we also put specific -- non-specific reserve (trends), sorry. But we also put some items of specific in there where we earmark it and say, well, risk exposure in a certain country, we're not yet clear whether we need to book reserve down into that country so we can hold it. It's like a holding pattern really. So part of the Group Re reserve is specific whilst this stuff runs off over time.

# **Q - Sami Taipalus** {BIO 17452234 <GO>}

All right. Thank you.

## A - Steve Wilson (BIO 19265275 <GO>)

Do we have one more question? I think we have another question.

# **Operator**

The next question is from Michael Huttner, JPMorgan. There are no further questions. I will hand over to Mr. Quinn.

# **A - George Quinn** {BIO 15159240 <GO>}

Thank you very much. I'm sorry that we weren't able to take as many questions as we had hoped today. As Steve already mentioned, we're more than happy to spend time on a one-on-one basis if you've gone through the material and you have more detailed questions, or if you've modeled figures and you're looking for help from us to try and understand them. We're more than happy to spend more time on that topic.

But thank you again for joining the call today. We appreciate all the questions today. And in particular, if you have feedback on the material that we're released, please let us know so that we can improve it for the future. Thank you.

## A - Steve Wilson (BIO 19265275 <GO>)

Thank you.

## **Operator**

Ladies and gentlemen, this concludes today's Q&A session. Thank you for participating and I wish you a pleasant rest of the day. Goodbye.

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