In association with

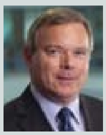
AXA Investment Managers

CHAIR

SHAZIA AZIM

Partner – Risk and Capital, Insurance, PwC

Shazia leads PwC's balance sheet optimisation proposition for financial services. She is a balance sheet optimisation expert who focuses upon capital and asset liability management across banks and insurance companies. Prior to PwC, Shazia spent 16 years in senior capital markets roles in investment banking and 10 years for Goldman Sachs.



CHRISTOPHER PRICE

Head of Insurance Solutions UK, AXA IM

Chris was appointed head of insurance solutions UK in June 2016. He is responsible for providing investment recommendations and developing customised solutions for UK insurance companies. Furthermore, Chris joined AXA IM from Deutsche Bank where he was director of insurance asset management and head of industry solutions in the UK.

ALEXANDRE MARTIN-MIN

Co-head of securitised & structured assets, AXA IM Structured Finance

Alexandre joined AXA IM in 2001 as head of the team in charge of investments in CLOs, ABS and regulatory capital transactions. In addition he has launched and managed numerous funds invested in CDO Equity and Debt, including the Saint Bernard Fund (US RMBS funds) and Opera (a CDO Equity closed-end fund).

PAUL AMER

Head of Investments, MS Amlin

Paul has eighteen years' experience within the asset management industry. He holds a degree in Economics and Statistics from Birmingham University and is a CFA Charterholder. Prior to joining MS Amlin, he served close to ten years as a senior investment manager at Insight Investment where he started managing traditional balanced funds.

ANTANAS CHRISTEV

Head of Investment, Direct Line Group

After graduating from the European Business School in London, Atanas worked as a bond analyst for ABN AMRO and later as a proprietary trader for S-E-Banken. Between 2000 and 2006 he ran Franklin Templeton's European High Yield Fund, before moving to the Kuwait Investment Office to co-manage their global corporate bond portfolios.

JAMES KENNEY

Former Chief Investment Officer, Novae

James was recently chief investment officer of Novae, a listed Lloyd's of London insurer, until its acquisition by AXIS Capital in late 2017. Prior to joining Novae, James was also deputy portfolio manager for Aviva Investor's fixed income hedge funds. Further, he is a qualified actuary who began his career at Mercer Investment Consulting.

Alternative credit in the non-life world

CHAIR: What are the key political and economic risks with your insurance funds that you manage and how do you deal with these risks?

PRICE: The interest rate cycle has changed direction in the UK and the US, and we are seeing central banks moving from providing liquidity to the market, to ending their QE programmes and potentially to unwinding their balance sheets. To get to where we are has taken 10 years, since the financial crisis, and I think that insurers see having higher interest rates highly desirable. The concern is how we get there however. A nice series of small steady steps would be ideal for insurers as obviously large interest rate spikes can be quite challenging from a balance sheet and capital point of view.

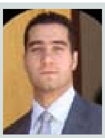
Global growth is looking quite positive and insurers are being much more global in their outlook in terms of where they invest. An insurer with sterling liabilities is happy to invest in eurozone assets, dollar assets or other currency assets, providing they can get the hedging in place at a fair cost. Insurers are sophisticated enough to capture the opportunities that appear more globally. From a UK point of view, inflation is probably higher than people would like it to be. When inflation started to re-emerge, I think the feeling was that most of that was coming from the devaluation of sterling. That is more than 12 months ago so that impact should have washed through, but the question is now why is it still high and where is it going next? Overall, diversification is probably the key to insurers getting more return while limiting additional risk.

SOFRONIOU: A key driver to understanding market moves is figuring out what economic environment you're in. As part of our regular market review process we look at how asset classes and the portfolio behave under different economic scenarios. This analysis drives our desire to hedge but also what hedging strategies to implement if we think a correction is on the way. What we found was short term corrections not driven by macro-economic fundamentals are not really worth hedging. For example if yields are rising slowly as a response to improving economic fundamentals that is good for the portfolio over a three to five year time horizon. If we get an event such as the 2008 global financial crisis where equity markets fall by 40% and credit spreads widen considerably that means the portfolio will suffer drawdowns that it won't be able to recover from. That is where we should be allocating our hedging programme. The key for me is the speed of the market's perception as to which economic scenario we are in. We have increased the probability that we see for "Normalisation" which we define as an environment of higher growth rates above and beyond potential therefore generating inflationary pressures and pushing both real and nominal rates higher. That is not necessarily a bad thing as long as it doesn't happen very quickly and we see the underlying picture remaining positive. The risk is that central banks remove accommodative policies too quickly pushing economies into recession.

CHAIR: One of the things that we have seen over the last 12 months is a spike in currency volatility and that has been a little more extreme than in previous years. Given that most of the insurance portfolios on the non-life side tend to be short-duration but with FX exposures, how do you think about your investments in different currencies and hedging around this?

CHRISTEV: We have recently put in a lot of work around our US dollar hedging strategy. We have US credit

ANKIT SHAH
Investment Manager, Antares Managing Agency
Ankit is responsible for structuring and implementing overall asset allocation of investment portfolios for Antares. In addition, Ankit has also worked with Qatar Insurance Company, Doha, Qatar (parent of Antares) as vice president – investments, overseeing the investment operations and strategic asset allocation across the QIC group.



ACHILLES SOFRONIOU
Senior Portfolio Strategist, Canopius Group
Achilles is responsible for monitoring economic and market developments and making both strategic and tactical asset allocation recommendations to the CIO and group investment committee. He also has primary responsibility for the development, maintenance and validation of the Economic Scenario Generator used in the internal model.

> We will see credit spreads widen because they have been squeezed by central bank activity. People will begin to get paid for taking credit risk again

portfolios where both interest rate and currency exposures are fully hedged. With the movement in the forward points, the currency hedging cost has increased quite dramatically, and a lot of people are wondering whether the right asset class remains attractive when compared, for example, to sterling credit. Our response has been to take a relatively small amount out of dollars into sterling credit as a tactical move. The bigger picture for us is that there are substantial benefits in investing in dollar credit in terms of diversification and access to a broad and liquid credit market. It would take a much bigger spread tightening in US credit (relative to sterling spreads) to force us into more radical moves. Over the long term hedged returns across the two markets tend to deviate by a limited amount, so I don't see us completely abandoning that market.

PRICE: On the credit spread side, I think there will be volatility but we will see credit spreads widen because they have been squeezed by central bank activity. People will begin to get paid for taking credit risk again, somewhere we haven't been for a while.

CHAIR: People have been calling the death of credit spreads for a while. We have been in a terrific bull market which has seen variation but these have been short term blips, but on the whole it has tightened and tightened and tightened and you are not actually getting paid for taking credit risk.

PRICE: But you haven't been getting properly paid for the risk you have been taking in other asset classes either? Arguably all assets have been over-priced. Currently the focus is on the relative value each asset class provides.

SHAH: I think that is what is driving the credit spread tightening. It is across equities as well. One of the concerns we see internally is where the US is actually in the growth cycle. Over the next 18 to 24 months we are likely to see a contraction in the US economy, maybe even a recession. Whether that will have an impact on other European economies or even EM economies remains to be seen.

AMER: It goes back to the old adage of 'if the US sneezes the rest of the world catches a cold'. At the moment I don't see why that would be any different. The US is much further along the cycle than the likes of Europe or the UK. With the fiscal stimulus boost that is going through they have managed to offset the probability of a for another 12 to 18 months. The question we have is where is the rest of the world at that time? Are we still going to see Europe at emergency levels, how many rate rises has the UK managed to get in by that point? If all of a sudden the US starts to roll, in an economic sense, you are looking at the UK and Europe with no room to move on the monetary side. So unless they restart QE which I imagine to be unpalatable, I fear economic pain has just been delayed. I don't see interest rates spikes occurring. Central Banks have learnt that slow and steady is the way forward and this has been evident from Federal Reserve rhetoric. We match our liabilities by currency but we manage it by duration. We currently have zero duration in Europe or the UK and we are significantly short in the US.

KENNEY: One fundamental change we made to the investment strategy framework at Novae was to move from an accounting basis to a more economic one, because fundamentally accounting principals don't always do a great job of capturing the real impact on your business of FX and interest rates movements. However, a problem with an economic basis is that it is not as easily defined as accounting principles. You have to make more assumptions or estimates, such as how sensitive your capital is to interest rates and FX. So it becomes far more subjective and complex. If you don't feel that you are measuring FX and currency sensitivities very well, then it is difficult to be confident of your true position in order to size your hedge. However, taking interest rates asan example of the benefits of an economic approach, our previous investment strategy was very short duration but some basic analysis showed that this had been costing us about £5m a year in negative carry. Given the investment portfolio p&l figures were only in the mid-teens (£m) that was quite a significant impact. Moving to a matched duration position on an economic basis, which was much longer than on an accounting basis, made us tens of millions of pounds over the next few years.

SOFRONIOU: We have a broad asset liability matching requirement at the aggregate level but we don't follow a LDI approach. The portfolio is managed in a "total return" way with the SAA set by the Boards following regular risk appetite reviews. While IG, HY & alternative credit will by definition score highly in any optimisation analysis due to the "low volatility" it is important to recognise that in this market environment positions that were once though to be liquid are no longer and so this has to recognised as a drawback for these asset classes. Also this low volatility is due to the fact that these instruments are not traded as they once were and have become buy and hold securities by necessity. The latest market flare-up has not really impacted the credit markets but it will be interesting to see how these assets will behave both in terms of price and correlation to equity markets.

MARTIN-MIN: If I compare with the global financial crisis, there is far less leverage in the banking systems. What we saw in 07/08 is unlikely to happen in the same way. We all think credit is very expensive and we try to find volatility ways to invest but we don't see on the other hand why margins should widen by a big margin. There is no default coming even in the US.

Alternative Credit

CHAIR: Looking at alternative credit, what is its popularity and what type of

> If you don't feel that you are measuring FX and currency sensitivities very well, then it is difficult to be confident of your true position in order to size your hedge

asset classes have you been investing in? What have you been finding interesting from a diversification perspective or from a risk/return perspective.

AMER: Our portfolios currently consist of equities, property, government bonds and the remainder in absolute return fixed income. We have a multi-asset, multi-manager approach and don't invest directly, using overlays to manage some of the equity risk. We have a number underlying absolute return fixed income managers and they all have varying targets and specialities. At the moment, in terms of the credit space, we have limited exposure. We have shied away from credit in the last three to four years as we don't feel as if we are getting paid for the risk being taken. With yields so low, you are having to push further and further into areas that would make you feel uncomfortable in normal situations just to try and achieve that return. From an asset allocation standpoint we prefer liquid areas such as equity which is easier to hedge with exchange traded derivatives but also then allocating it to specialist investors.

PRICE: There are some liquid alternative credit products out there and one of the interesting things for me is how regulation has distorted some of the opportunities for insurers. We have talked about CLOs to a lot of people this year. If you happen to be a standard model user, the capital you have to put up for CLOs is penal. However if you use the historical data on the CLOs you can actually see that internal models can quite easily justify a much lower capital requirement for them in terms of their historical performance. In fact, part of the problem with the calibration of the standard model is that CLOs were bracketed together with CDOs and other things. Some parts of that performed extremely badly during the financial crisis and some parts performed very well and although there was a lot of mark-to-market volatility for CLOs there was very little actual default. Looking at what is actually happening with insurers in the UK - when Solvency II first went live there was a relatively small number of large insurers that went down the internal model route. What we are seeing now is a trend for more and more insurers follow suit. This will open some additional opportunities, and potentially in the ABS space.

SHAH: Over two years ago we decided to go into the alternative credit space and we introduced securitised assets including some parts of leverage loans as well as CLOs. We are risk/return adequately adjusted on that basis. Last year we looked at the illiquid credit spectrum as well and we allocated two to two and a half per cent three percent into that space, but that we only see on the surplus assets which we are comfortable. We still feel as if you are being compensated adequately on the illiquidity premium.

CHRISTEV: We are using an internal capital model. With securitised credit we had a portfolio which included ABS, US student loans and CLOs. About

> Part of the problem with the calibration of the standard model is that CLOs were bracketed together with CDOs and other things

two years ago when the regulatory treatment of some of the assets changed, our initial response was to replace certain holdings with others with better treatment. In the end we decided that it was not worth the additional complexity. Recently we have been having discussions with managers about the changes that are expected to take place in the next couple of quarters and it looks like things will look up in 2019. We have about 10% exposure to UK property, both directly and through commercial real estate loans, as well as a portfolio primarily invested in UK social infrastructure. While we have no equity holdings we have made a small allocation to US short duration high yield bonds.

> If you look at the European non-life sector, it is considerably more advanced from an asset allocation perspective in terms of different asset classes

UK/EU Investment

CHAIR: If you look at the European non-life sector, it is considerably more advanced from an asset allocation perspective in terms of different asset classes. Sitting in the UK, for you is there a UK oriented issue that makes you feel more constrained or conservative in your investment outlook than some of the European insurers?

KENNEY: When considering alternative asset classes, size of portfolio was the main constraint. I would have gladly made a small allocation to a few different alternative asset classes but that was not practical given the relatively small size of the portfolio.

SOFRONIOU: Having an allocation to illiquid strategies makes sense especially if these strategies generate income early on. We created a few rules for illiquid investments driven by the Board. One of them was understanding what the underlying investments in the collateral pools are. The second one was a requirement for robust and independent pricing. The third one was that we couldn't hold the equity tranche within a securitised structure and be exposed to first loss. While these investments have performed well we are seeing a general relaxation of covenants in many deals as institutional allocations continue to flow into this asset class.

CHAIR: The modelling challenges involved in the construction of portfolios and the diversification and the standard formula versus the internal model approach, could I have a few comments on this. If I look at the life sector, that is an absolute constraint and there is no moving away from it. On the non-life sector it seems to be a little different because you do have a dichotomy between people with internal models and standard models.

PRICE: Some of the real assets such as infrastructure debt and real estate debt are relatively recently used asset classes and the challenge for these has been data. For an internal model the regulator requires you to support your application with considerable data and for some asset classes that is a challenge.

SHAH: I agree. Sometimes you may end up using a proxy index for this.

CHAIR: From my mind, I often find some of the Solvency II modelling arbitrary in the sense that if I feel from a risk/reward perspective I would say I am happy investing in student loans for now or equity release mortgages as an economic underlyer. What are the sorts of challenges that you get when you take some of you more interesting investments to your investment committee and you are faced with these capital actuaries?

PRICE: The single most important rule for any investor is to understand

what you are investing in. That makes complexity a key issue. In an ideal world most insurers would like to look at and assess every asset class out there but there is not infinite resource for this. Insurers prioritise those asset classes that they have the resource to review.

CHAIR: When you unpick these assets, it is non-trivial to think about the exact return I am getting paid and what are the cash flows. If we then move to diversification and the theory of economics and we say diversification ultimately pays you because it lowers the risk and therefore it means you would want to go to the committee with different asset classes and how do you pick which asset class to go for in the world of so many investments.

KENNEY: I always consider diversification as reducing your day to day risk, your volatility. I don't think of diversification as being anywhere near as beneficial when it comes to the tail risk. Yes there is also a keenness to reduce that reporting volatility and diversification is beneficial here but a good amount of this can be achieved through allocations to property and listed vehicles. Alternative credit has a very important role to play generally within the insurance landscape, and when we are talking about short tail non-life companies, that has got to be the area that has the biggest hurdles to clear and the biggest barriers to make its way into the portfolio.

SOFRONIOU: Being a P&C insurer with catastrophe risk being the main driver of capital, all the modelling we have undertaken suggests that increasing market risk has very little impact. We have looked at capital optimisation and focused on not only the 1 in 200 but all the distribution as increasing market risk has a bigger impact at different levels of the distribution the closer you get to the mean. Solvency II has more of an impact on the regulatory and reporting side of the business.

Even if Solvency II is imperfect and a lot of it is, we think a lot more about the risks entailed on the investment side than we ever used to

CHAIR: What are the main challenges you come across from a Solvency II perspective?

CHRISTEV: It is about understanding the Solvency II model better. I do find it frustrating that for us on the investment side the model is to a certain degree a black box. There is little transparency on how asset classes interact with each other and one must use the output from various permutations to make inferences. Another issue is that a number of asset classes are represented with approximations which could lead to oversimplification and/or suboptimal asset allocation decisions.

PRICE: There is another side of the coin here and it is a lot more positive. Even if Solvency II is imperfect and a lot of it is we think a lot more about the risks entailed on the investment side than we ever used to and just the fact that it makes us think a lot more about it has to be a good thing. Brexit and impact on regulation is an interesting one. It seems highly unlikely that the PRA will do anything to rock the boat until well after any transition period has expired. The reality is that it may not be the PRA moving away from the remainder of the EU as the EU continuing to evolve Solvency II which won't automatically change UK regulations. In a sense it will be the EU moving away from us potentially.

AMER: There won't be a great divergence in regulations otherwise you start to put the UK on a different footing completely which affects potential business in the future.

ESG

CHAIR: Can we comment on ESG and responsible investing in the insurance space?

MARTIN-MIN: ESG and responsible investing in the insurance space is nothing new. Indeed we have been doing this in some form for more than 20 years. We have a lot of RI and ESG initiatives in the company - embedded across asset classes - and we are working heavily on plus 2 degree compliance. That's not just branding or advertising. ESG is at the heart of all of our investment processes including alternative credit. Even in the alternative credit space we try to avoid non-ESG compliant investments - for leveraged loans and all types of investments - and this will be a strong trend over the coming years. Beyond RI we also have a private equity impact investing team that seeks out innovative projects that balance the double objective of creating positive social impact and financial returns for our clients. They look to create this impact by addressing such needs as access to water, energy, financial services, healthcare and education - just to name a few.

PRICE: I think historically there has been the concern that to invest responsibly you have to give something up in terms of return. That is not really how we are looking at it when we integrate ESG into our investment processes and strategies. On the other side of the coin, you could actually be reducing risk. For example if you happen to be an equity or bond investor in a coal producer and the regulation in the country suddenly changes and carbon taxes increase sharply, the performance of that company and your investment may suffer. There is often an unrecognised tail risk in non-ESG products. Actually, therefore, you are potentially getting an improvement in your risk/return relationship by embedding ESG in your investment process.

AMER: I agree that from a portfolio construction perspective it is potentially a good thing, but equally it goes back to the liquidity question of some of these investments. This area is still very much in its infancy. It has to be attractive from a risk/return perspective before it gets included in a portfolio and I don't believe you can just conform to be socially acceptable - you have a duty of care around client assets, so if it is not in their best interests then it should not be included.

PRICE: We would agree. We want to invest responsibly but ideally with a benefit rather than a cost attached to doing that.

MARTIN-MIN: We have never traded in hedge funds that trade commodities as we see those things as negative. It is all about the social responsibility of us as institutional investors.

SHAH: I think a lot of time the shareholder expectation is around the return and deployment of capital and funds. This gets precedent to ESG criteria.

CHAIR: From an ESG investment standpoint, I think Europe is a lot more advanced than the US and it is really good to see AXA as one of the main trailblazers around this.

CHRISTEV: Maybe it has something to do with cultural differences. The relatively more 'dirigiste' continental European model of capitalism, compared to the laissez-faire Anglo-Saxon type, could be expected to nurture policies and approaches which are not exclusively focused on highest economic profit or returns. In any case, what has struck me over the last year having spoken to external managers, is the progress that has been made in quantifying and measuring ESG-oriented investing, and enabling the buy-side to consider seriously adopting one or another ESG-conscious approach to portfolio management.

PRICE: In the UK, the biggest take up from insurance investors to date is probably among mutual insurers because their policy holders and owners are aligned and also it sits well with the ethos of the sector. At the other end of the spectrum, you have insurers who have a high profile brand who want to say they are involved in ESG and investing responsibly. This feeds into their brand values. On the other hand we should consider what will happen to companies that get squeezed out of ESG indices but still produce something that is essential?

CHAIR: To me, I think the next 12 months will be very interesting from an investment perspective. Political risk is really high at the moment. Volatility for now is low but I do not expect it to remain low, I believe currency volatility spread will spike. Credit is something to watch out for over the next year as well. Around diversification, I do think it eventually pays, if only to mitigate the volatility you are running.

> ESG is at the heart of all of our investment processes including alternative credit. Even in the alternative credit space we try to avoid non-ESG compliant investments