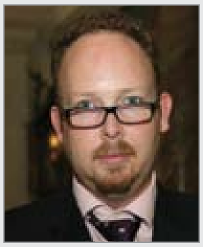
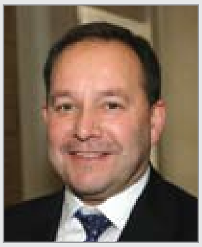
MD: Mireille Dyrberg, chief executive officer, TriOptima EMEA

JConnor: Jim Connor, consultant, Navigant (chair)



SI: Stephen Ingle, derivative product manager EMEA, BNY Mellon Asset Servicing

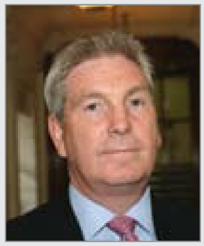


MS: Mark Schoen, head of global product and strategy EMEA, Northern Trust

JCork: Julian Cork, head of global derivatives services, J.P. Morgan

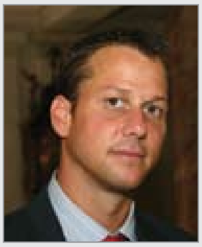
AB: Alan Burgess, director of investment administration, M&G Investment Management

MH: Martin Higgs, European derivatives manager, investor services Europe, State Street

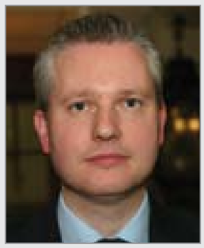


JD: John Devine, chief operating officer, Threadneedle Asset Management

JA: Jon Anderson, global head of OTC derivatives, GlobeOp Financial Services



TW: Tom Willoughby, manager of derivative operations, European Credit Management



SF: Steven Forsyth, consultant, Navigant

An evolving model

"As long as people feel they understand the risk/reward equation and there is increased transparency there will always be demand at the exotic end of the spectrum."

JConnor: Welcome everybody. The format that I'd like to try and adopt for the roundtable is to walk through the questions and the responses from the Navigant survey and get people's interpretations of the survey results and then draw some of the bigger themes together regarding what is in store for the industry on a slightly longer term basis.

SF: So the first question we asked was "Which investment strategies using derivatives do you currently, or are you planning to, offer?" I think you can cut the results up into three areas: the dominant strategies, such as absolute return, equity long/ short, market neutral, hedging overlay. The majority of respondents are currently offering these. Then future growth – strategies such as distressed debt, managed futures and global macro that provide managers with new opportunities as investor/ market confidence begins to return. And then there are those strategies which are in retreat, such as 130/30, fund of hedge funds, convertible arbitrage and event driven. Overall these results suggest a move away from strategies that you would describe as exotic towards the better to understand/ more trusted strategies.

JD: I'd say anybody who wants to be at the exotic end, the risk transparency you need to be able to sell and market that product to a wide marketplace who are pretty risk averse is now so great that I think the cost of doing it means it's just generally common sense to sort of move away from it for a while. Are these strategies going to come back again? There will be some niche demand in the short term and as long as people feel they understand the risk/reward equation and there is increased transparency there will always be demand at the exotic end of the spectrum.

JConnor: And the service providers?

JA: Yes, in particular outstanding volumes are down, more even than activity, and that reflects people wanting to get into products that they can easily get out of. This is not just about transparency though, it's also about liquidity in the market. Even greater than the tolerance for complex products disappearing or shrinking has been the intolerance for spreadsheets increasing. That means a move towards automated systems and outsourcing, and the clarity and transparency that comes with an extra set of eyes and an automated process

JCork: I'd agree with that. In J.P. Morgan GDS we've seen a decline in the number of open positions along with a higher churn in the more vanilla products. We have seen demand for credit instruments drop off and we have also seen more demand for some of the more complex products such as equity basket swaps, commodity swaps and FX barrier options.

JConnor: Tom: does the survey echo points about selective innovation, if I might put that label on it?

TW: Very much so. We're a traditional investment manager with a limited hedge fund capability in the credit markets. With exotic strategies largely dependent on leverage and favourable money market conditions, the recent trend to more vanilla trading and selective innovation is not surprising.

MH: I would agree with what you have here in the survey that the absolute return and the equity long/ shorts are where we've seen growth in terms of real volumes. The CDS and TRS have also been on the increase whereas the more vanilla interest rate and CFDs have been on the decrease. In terms of overall volumes, we've found that they have been staying fairly stable this year compared to last year although

there has been a fall off in the number of positions.

JConnor: But the net effect has been a move away from the widespread use of exotic techniques or instruments?

TW: Yes, there's been a consolidation - a drive towards cash, the safer products reflecting the desire and need for maximum liquidity during a time of great uncertainty and worry.

SF: The next question concerned the number of derivative contracts: have they increased, decreased or stayed the same in the last twelve months? Everyone last year was looking to increase, and this year we've got an even split: a third stayed the same, a third have decreased and a third still want to increase.

JConnor: Do you think derivative volumes will that eventually get us back to the levels we had before or has there been a fundamental change in the market? Tom?

TW: There is no question in my opinion the OTC market has fundamentally changed. Due to the high-profile defaults of recent times, there has been a sudden drive for greater collateralization of positions which in turn has led to the drive for standardization of contracts, greater fungibility, portfolio compressions and so forth. With the need to collateralize each trade and the mitigation of counterparty risk at the forefront of the dealers' agendas right now, rather as an afterthought, certain advantages of running synthetic positions versus the underlying cash product no longer exist or are greatly diminished.

JCork: Also within the OTC world we have some significant operational challenges on the horizon with a number of industry commitments agreed, such as implementation of the clearing houses, contract standardisation, confirmation timing improvements and the move to central settlement. These changes are going to help address the challenges the industry faces, such as counterparty risk, so a lot of the barriers we see today are going to be slowly going away. Obviously it's going to be a long haul as we start with the vanilla instruments before tackling the more exotic instruments. I think that the combination of asset managers moving back into the more leveraged strategies as market confidence improves, coupled with the industry changes I mentioned are going to be the catalysts for volume to increase in the longer term.

JConnor: John, maybe I could ask you as an asset manager, where do you sit?

JD: I think the professionalization of the derivative infrastructure - a listing mechanism plus a clearing mechanism, central counterparties and so forth - that's clearly going to have an impact longer term. But I think this is a trend over the next four or five years, so you can't hold your breath and wait for that. The second thing I'd say is I don't think I've ever been to a meeting, certainly while I've been in fund management, where we've sat down and said "we're not going to do derivatives." It doesn't work like that. What we look at is what products we think we can sell, what do we think the market wants for two, three years down the road, and what do we need to be successful in those products? And then look at our capabilities and take a sensible decision on that. Finally I think now credit risk is far more understood, the legal risk of contract: that whole legal infrastructure is a lot clearer.

JConnor: Alan, does what you're hearing resonate? And again if there is a long term demand for these things because that is the nature of fund management, then what are going to be the things that we should look for that will herald the step changes or a growth in volumes going forward?

AB: What has changed for us, is that whilst the credit

"It was an operations type agenda last year, and now it's very much a risk agenda that's coming through with a greater focus on risk, controls, monitoring and regulations now in evidence"

derivative market has dried up, it has been replaced by the availability of relatively cheap traditional bonds. Our bond funds have attracted significant inflows this year as investors have been looking for relative safety with better returns than cash. From an operational perspective the move towards further collateralisation of instruments which was not seen historically included e.g. forward FXs (FFXs). This has led to greater operational burden and an increase in demand for assets in the portfolio.

SI: I think what is important there though is also that a strategy that would trade in many different instruments can be serviced off a single platform: you need to be able to bundle everything into one particular deliverable. Whether the client wants to trade bonds, fixed income, FX products, equity products, some derivative products, some alternative products, you need to be able to ensure that you can service them out of one single environment.

JConnor: Let me ask Stephen, has there been a take up in things like exchange-rated derivatives that play to some of the fear factors we've outlined?

SI: The key issue is counterparty risk so why trade on an exchange? Well you're not exposed to particular counterparty risk. But have we seen a huge increase in ETD growth? No we actually haven't, and that would be almost anathema in terms of some of the structuring of the products that's allowed - you couldn't actually have that increase in ETD products giving you exactly the same bespoke tailoring of portfolios.

JD: Understanding the rating of your counterparty is one thing, and I think historically that's what credit management was all about. But now it's the operational impact of that credit rating. Yes you may have a credit rating of AAA but if your operational structure is a BBB structure with an AA counterparty, you're really a BBB. Your counterparty may be solid but if your assets are caught up in rehypothecation somewhere else, it doesn't matter.

SI: Right, and I heard someone say the other day that the effect of collateral management is a bit like a parachute: if it's not where you need it chances are you'll never need it again.

MD: For me, as a vendor in that space, that's interesting to hear because it seems to me that the dealer community was pretty sharp at understanding that they needed to manage this and we experienced rapid adoption of the portfolio reconciliation service that we launched to collateral managers two and a half years ago. But only later – in the past year - have we seen an acknowledgement of this on the buy side. The Lehman crisis brought home to the buy-side community how very important it was to have immediate access to your exposures on a daily basis or indeed with an hour's notice.

JA: There's definitely been an increased awareness. Pre-Lehman there was a tendency on the part of funds to trust the sell side to manage the collateral process accurately for them. If there's one quick lesson that was learned in September and October of last year - which won't be forgotten - it's "no longer trust, but verify". And that means that funds have got to be doing this independently.

SF: The next question asked respondents to identify how important various derivative operational issues were within their organisation. And we saw clearly

a switch in focus: it was an operations type agenda last year, and now it's very much a risk agenda that's coming through with a greater focus on risk, controls, monitoring and regulations now in evidence.

MS: Well I think speaking generally we saw mixed emotions around putting expensive middle and back office systems in place on the buy side, but this changed with Lehmans. The issues around valuation, counterparty exposure and collateral have changed the focus in this area. Now we see many buy side firms look more at how was that price derived, what was the calibration methodology used, what was the underlying data. It's an internal issue as well as the portfolio's concern, so we've seen the risk people from the buy side firms getting much closer to understanding what the derivatives exposures are and how they're managed and how they manage their counterparty risk and credit risk in the portfolio.

MH: I think that those new issues have come in and have just crowded out those that were there before. I don't think those that were there before have gone away, they're just not quite so important. Some of the clients I've been speaking to recently are confused and worried by the potential regulation that's coming along, they don't know what to do. Should they be looking at CLS, central counterparties or something else: what is the one thing that they should be concentrating on? They don't have clear direction yet on what to do and so that's certainly a top item for some of our clients.

MD: That is the key. Where is your risk? Is your risk in the trades that you can clear centrally? Is your risk in the trades that you can match on a confirmation platform or in the Trade Information Warehouse? If you look to AIG that is not where the risk was, the risk was in the spreadsheet based approach, the things that couldn't be matched electronically. Those are the subsegments of your trading portfolio where you need to enhance the controls and where you really need to turn your focus, because you are not going to have the big errors and losses on the vanilla products, you are really going to burn out on the exotics, and those are the harder trades to process. You need a flexible system which allows you to capture and match this type of transactions as well.

JConnor: Is there a general view amongst the table that more can be done internally within organisations or indeed the centre of excellence concept for a central counterparty or a reconciliation utility? Are we going to see projects in organisations to do some of these things?

AB: To enable us to cope with a proposed expansion in our derivative activity in 2009/2010 and beyond, we did put in place additional infrastructure to remove some of the constraints placed on the front office. For 2010, the main derivatives based project being considered, is front office dealing, and even that is under threat due to the low volumes currently being experienced. Central counterparty is a fairly new industry initiative and we are watching to see how this develops further.

MS: I think things all start from better governance from the firm at the top level to protect both the firm and the investors. So the biggest change is around understanding at a more granular level things like the valuation and the extent and the nature of the exposures. I think this is going to transform investment in this area: over the last two years the level of understanding of the infrastructure that's required to support derivatives has been transformed.

JConnor: So, what are your clients asking for, Mark?
MS: Around structured products and exotics, everybody's reporting a lack of sophistication and a dumbing down, but we don't see that at all, we're saying "if I'm going to do these longevity swaps I'm not comfortable with just living off of what the counterparty's telling me how this is valued, so I want to see how that value is derived".

"Around structured products and exotics, everybody's reporting a lack of sophistication and a dumbing down, but we don't see that at all"

JCork: We're seeing a lot more demand for multiple valuations for the same position. In order to do this, we have our own valuations that we're creating independently off our platforms. We also use third-party valuation providers, and, additionally, we look at the counterparty mark. We bring that all together, checking it within the tolerances and then pass the validated results to our fund accounting teams. We are also able to use these valuations for collateral management, providing clients with the ammunition to push back against their counterparty.

SI: So the next step, is that the question always comes up once you get into the discussion, of "will you stand behind that price?" Are you legally liable if there's a loss: you've been valuing my product using this formula and this agreed decision tree for the last 200 days, but we tried to dispose of the product in the market today and we got one percent of what you've been valuing it at.

JD: I'm less worried about the valuation of complex derivative instruments because you take a set of assumptions, you can test those assumptions, you can put a valuation which you can stand behind. It's their credit components and their liquidity that I get worried about - that's what people can't price, this liquidity.

SF: One of the questions we were posing here was around outsourcing of risk management. The survey highlighted a small take-up in terms of risk management services, which was surprising. The question for the group is therefore "Is this an area that service providers can provide an effective service?"

JA: We get a lot of interest in that. The investor is interested in whether or not fund risks actually reflect fund strategies. So making that available to the end investor in the case of a hedge fund is extremely important. We use a product called GoBook which allows the fund manager to provide risk information to his investors in the manner he wants: for example, he can show asset allocation or correlation to particular indices. Very few funds who do risk management internally will come to us and say they do it inadequately, but what they will say is they have inadequate transparency for their investors. That's why I think it's actually important to run risk off the books and records of funds. So, in fact, we're seeing a huge demand for it and even from people who have very sophisticated processes internally - they want to see it done again for their investors by an external independent source.

JCork: Some people say that derivatives processing is a facet of fund accounting, but I think to be successful you've got to have the infrastructure outside of the fund accounting architecture and have a dedicated, specialist derivatives processing, valuation risk management platform and people across a provider firm, in order to provide the capabilities required.

SI: There's an ever-increasing appetite from a performance and risk perspective and it does grow. I think the problem here is that if you're looking at solely the derivatives, then you're not watching the entire game; it's like watching one football player on the field, you miss out on most of the story. Let's take a credit derivative and we've traded a CDS and the rating of a particular bond goes down. If you look at that alongside the CDS which you've purchased, the bond and the CDS position simultaneously, actually you haven't exposed yourself to any additional risk, there hasn't been a major change. So getting a better understanding of the holistic processes around risk management, so it's not just about looking at a particular instrument and saying, "what is the

"I think there comes a point where you've got to identify what your core businesses are, what your core motivations are, and cost things out properly"

particular VAR dollar value that I can throw at this instrument?"

MD: I would agree with you on that, Steven. In the past traders would often just tend to ignore the spreadsheets detailing incorrectly booked trades which were sent to them by Collateral Management. If there was a P&L impact the trades would be amended, but issues such as wrong legal counterparty wouldn't necessarily trigger a response. Nowadays when a trader gets a notification from collateral management saying "you have booked your trade against the wrong legal counterparty", they react immediately and that is a huge change. Previously there was very little appreciation of what collateral management was and its importance. Now this function gets the attention it requires at all levels of the organisation.

JConnor: My sense is that collateral management is one of those areas that has had traction for the better part of 12 months.

JA: What we're seeing anecdotally is that there's a much greater increase in the activity between our clients and ourselves about that. We're seeing much more demand for information, much more exchange of information. The manager who let us handle it every day and monitored it once a week is now handling it with us every day. It's important to exchange that information in a very organised fashion.

MS: Can I just make a comment, because I think that reflects our experience, I'm really surprised that people are readily outsourcing the risk management function. We've seen a much more intimate relationship with the risk department and their profile has completely transformed over the last couple of years, but that's the nature of the relationship: getting close to deal with the data issues, to make sure that we're feeding the engines correctly. But the ownership? I just haven't seen it moving away from it being a core function of the manager.

JD: I can't imagine pitching to a client, an institutional client, and telling him I've outsourced my risk management. I just can't imagine an institution giving me their money to manage if I'm not capable of managing my own risk and his risk and his funds; isn't that my basic duty?

JConnor: Let's move on to the whole pricing question.

SF: We're seeing managers turning to numerous vendors as part of a multi-pricing strategy for valuing OTC derivatives. Three quarters of respondents indicated they were using two, three, and four, in some cases five sources. Of those that are just using one source to value, the majority are using a specialist provider or a third-party administrator.

JConnor: I think the pricing process is going through a similar journey here which is actually that this stuff matters. Very encouragingly I think, we see in the data the view that there is a pricing committee expressed by a third of the respondents - fantastic news.

MH: I agree with that: some of the clients who are just taking the counterparty prices are looking for a third party price and those who have already moved to an independent price are moving to use multi independent prices and so it's just moving up the chain a bit.

SI: Importantly though, anywhere where a contracting party has been used to value something, you can trade exactly the same product for the same notional over two different counterparties, you get two dif-

ferent values back from it because they're using different cut off, different cut points, different models, and so forth.

JD: This whole discussion is on OTC pricing, I make no distinction between OTC and cash, we focus on the instruments to give you the end product so I don't differentiate between derivatives and cash products. Pricing of illiquidity can be problematic as we have seen for certain bonds and vanilla instruments so we need to look at this in terms of the whole portfolio not just the OTC components.

JA: And if you accept the fact that there's always going to be valuations of varying qualities out there, one of the most important things is to have proper disclosure around that - so that an investor can come in and ask in due diligence what percentage is manager marked, and why? What percentage is single source marked, and why?

JConnor: Now going on to the questions concerning how people are reacting to the risk agenda: the results show they are prioritising. There is a wake-up call to kind of make sure you've got better risk management, people are saying that more could be done. Mark is that what you are hearing in your client base?

MS: Yes, and just to summarise what we've heard before, there is a lack of infrastructure typically in the buy side, and definitely in the asset owners, so they do look to the outsourcer to supply a lot of infrastructure. The big changes have been around increased sophistication and increased innovation, I think that's what we have seen the most over the last year, and I think a lot of the administrators have a richer understanding of what we are supposed to supply in this area as well, and that has been a big change. Strategy attribution, that's going to be one of the big things that I think we will see over the next couple of years - to attribute the use of derivatives to the performance of the portfolio and the objectives of the fund mandate.

MH: I would agree with what Mark said, I think that as the administrators, we're getting better at what we're doing: it's what we have to do to survive, and to ensure we keep our clients happy.

TW: From an operations perspective, as an investment manager who does a lot of these functions in house at the moment, one thing that needs pointing out is that we require more dynamic, static data systems: I think that's key really in achieving all these improved controls and diagnostics which everyone desires.:

JConnor: Is that something that you feel you have to do yourself, or is it something you do in partnership with an outsource provider?

TW: I think there comes a point where you've got to identify what your core businesses are, what your core motivations are, and cost things out properly. There are now many specialist vendors out there, partners that you can do business with, who have already done the leg work Realistically as a fund manager I would question whether we have the resource, or the capability of building something which is either superior or cheaper to deliver than a solution offered by a specialist third party. Of course teaming up with a specialist provider also neatly solves the problem of ongoing support which is a great commitment for those who choose to develop these types of system in-house.

MH: This even comes down to firms like us. Are we supposed to be a third party administrator or a developer, and is it right for us to develop in house or to go and buy externally? So, it doesn't really matter on the size of the organisation, it's the same debate.

"Finally I think its worth emphasising the important issues which have come up in the survey - reconciliation, the confirmation of trade, monitoring your exposure, knowing what your position is – and to that I would just add the regulatory prospects"

JCork: I also think there is an 'execution ability' risk of how we are, in the buy side, facing the challenges that come with the huge amount of change happening within the industry. We need to make sure that everyone is equipped to be able to handle all the industry initiatives, such as central counterparty, central clearing, and others. J.P. Morgan GDS is focusing on making sure we are ready for this by keeping ahead of the curve by partnering our investment bank. You also need to have the right set-up to be able to capitalize on these changes – automated derivatives specific infrastructure coupled with knowledgeable people.

JA: I think there are two levels of risk and I think this addresses the level which I would call the "portfolio manager's risk." The portfolio manger focuses primarily on the risk within his portfolio and the operational capabilities within that context. We spent a lot of time and effort over the course of the last year on this and I think many organisations have. Risk is not only the portfolio managers' responsibility, but is the responsibility of the whole organization. Really understanding the impact on your organisation - the potential economic impact, for instance, of the correlation between your strategies within all your different funds. Because the bottom line performance drives future growth in funds, and therefore future profits, if your strategies are too correlated then, even if you have 400 funds, your performance may suffer. Therefore longer term you have an organizational risk in your business.

MD: Yes, I would say that rather than focusing on improving the monitoring of one pillar of risk, for example counterparty, what we see as critical is improving the transparency of your view on risk overall. Also key is enabling the generation of very rapid reports that will, at a glance and at the touch of a button, display to you what your risk is: your operational risk, your credit risk, your counterparty risk, and your market risk.

AB: Due to the nature of M&G's client base, and the regulations under which they are governed, M&G has always been a risk-averse organisation with strong people, processes and systems. Our attitude towards counterparty risk has strengthened and therefore we have tighter risk controls in place. This is also an attitude being imposed by the counterparty.

MH: Finally I think its worth emphasising the important issues which have come up in the survey - reconciliation, the confirmation of trade, monitoring your exposure, knowing what your position is – and to that I would just add the regulatory prospects. That's to say what the US and the European Commission are actually going to come out with, and say "this is what you are going to do": we will have to make sure that we can all cope with that and handle it.

JConnor: Thank you all very much.