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Derivatives House of the Year

Deutsche Bank

Risk Awards 2011

A new world

Regulators have finalised new rules that will change the face of the derivatives markets. *Risk* recognises those institutions that have prepared best for the forthcoming change, and still continued to provide top-notch derivatives and risk management services to their clients. By Matt Cameron, Alexander Campbell, Laurie Carver, Joel Clark, Mauro Cesa, Clive Davidson, Peter Madigan, Ned Molloy, Mark Pengelly, Nick Sawyer, Michael Watt, Christopher Whittall and Duncan Wood

More than three years after the US subprime mortgage crisis began to engulf the financial system, regulators are putting the final touches to rules that reflect some of the lessons learned. Last month, the Basel Committee on Banking Supervision published the final version of Basel III – a comprehensive package of measures that will increase minimum capital requirements, while also introducing a counter-cyclical charge, two liquidity ratios, a charge for credit value adjustment and a leverage ratio, among other things.

The Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into US law in July, while the European Commission published its own proposals on financial market reform last September. Both will require a large part of the over-the-counter derivatives market to clear through central counterparties.

These rules will pose some monumental challenges for banks, investors, clearing houses and technology providers – but some are working hard to get ahead of the curve. A small number of banks have already set up client clearing services, with the first trades going through last year. It is early days – many clients are still reluctant to make the jump, but those that have say only two or three banks are able to deliver.

Others are looking to get their balance sheets in shape ahead of the new rules, creating an opportunity for dealers to help clients raise funds, put on accounting-friendly hedges, optimise balance sheets and reduce capital-inefficient exposures. Already, some interesting ideas are starting to emerge – securitising derivatives counterparty credit risk to reduce capital requirements, for instance.

All this comes at a time of upheaval in derivatives pricing, with major banks now taking funding costs as well as credit and capital charges into account. Prices these days very much depend on whether a trade is collateralised or non-collateralised – but some smaller banks are still behind the curve.

There's also the little matter of a sovereign debt crisis in the eurozone, with Portugal and Spain coming under pressure following the rescues of Greece and Ireland. Volatility surged on several occasions in 2010 as the crisis worsened – something that caught a number of equity derivatives dealers out in May, with several reporting dramatic declines in revenues.

This made judging the *Risk* awards incredibly difficult once again. Many of the decisions were extremely close, and separating the leading two or three institutions in each category was no mean feat. As usual, the *Risk* editorial team relied heavily on client feedback. We also spent time talking with risk managers, asking for demonstrations of risk systems and viewing risk reports.

The judging period lasted three months from October to December 2010. Banks were asked to submit information on their business in each of the product categories in 2010, and those firms or individuals on the shortlist then underwent a series of interviews. In many cases, *Risk* asked to see term sheets, risk systems and internal profit and loss figures for individual desks. *Risk* then performed a lengthy due diligence process, contacting banks' clients to confirm that trades took place and that customers were happy with the end results.

In making the final decisions, a number of factors were considered, including (but not restricted to) risk management, client service (in particular, providing risk management advice), forward-thinking on regulatory issues, liquidity provision and quality of post-sales service.

The roll of honour

Derivatives house of the year

Inflation derivatives house of the year

Hedge fund derivatives house of the year

Derivatives research house of the year

Bank risk manager of the year

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HOUSE OF THE YEAR
DEUTSCHE BANK

The world is about to change for derivatives dealers. A new package of liquidity, leverage and capital measures was finalised by the Basel Committee on Banking Supervision last month, while the European Union (EU) will confirm its rules for over-the-counter (OTC) derivatives early this year. Like the US Dodd-Frank Wall Street Reform and Consumer Protection Act, which passed into law last July, it will require a large portion of the OTC derivatives market to be cleared through central counterparties (CCPs).

Banks know these changes will impact how they do business, but are at different stages of preparation. Perhaps three or four firms are leading the way – and Deutsche Bank is among them. The bank is one of those in the vanguard of central clearing, having set up a centralised clearing platform for OTC derivatives and electronically traded and cleared interest rate swaps on behalf of clients. But it has also looked to alter the whole focus of its business over the past two years, shifting away from proprietary trading in favour of a more client-driven approach.

"We recalibrated our derivatives business model completely. Our willingness to be the ultimate wholesaler, where we kept unhedged correlation and other illiquid assets with a large risk appetite, changed completely from 2008. We've benefited from our long-time, steady investment in client businesses and shut dedicated proprietary trading," says Anshu Jain, head of the corporate and investment bank at Deutsche in London.

This recalibration has manifested itself in a variety of ways. The firm closed its credit prop trading desk at the end of 2008, and followed up with closure of its equity prop business last year. Changes have also been made to the balance sheet, with assets that are less liquid discarded – a shift that has contributed to a reduction in risk-weighted assets to €277 billion in the third quarter of 2010 from €328 billion at the end of 2007. Meanwhile, Tier I capital has increased at a group level since the beginning of the crisis, rising from 8.6% at the end of 2007 to 11.5% in the third quarter of last year (although some analysts point out this is lower than many of its rivals). Most recently, the bank raised €10.2 billion in new capital in October through the sale of 308.6 million new registered no-par value shares, in part to finance a voluntary public takeover of Deutsche Postbank – a deal that has made Deutsche Bank majority owner of the retail banking giant.

This is partly informed by new regulations – the Basel III rules were finalised in December, and will introduce a new leverage ratio, two tough liquidity ratios, counter-cyclical capital buffers, a new credit value adjustment (CVA) capital charge and higher minimum capital requirements. As well as leading to higher capital generally across the banking sector, the new rules mean it will be extremely expensive for dealers to maintain large, uncollateralised and uncleared derivatives portfolios and warehouse large, illiquid exposures. But the changes in business model have also been informed by losses.

Deutsche had a nightmare end to 2008, racking up credit trading losses of €3.4 billion in the fourth quarter, of which €1 billion was related to prop. The bank also reported a whopping €1.7 billion loss in its equity derivatives business in the last three months of that year, primarily on the back of massive dislocations in volatility, correlation and dividend markets. A further hit was taken in the following quarter, as the bank shed its complex equity derivatives risks, causing net revenues in sales and trading (equity) to drop to €275 million in the first quarter of 2009 versus €745 million in the same three-month period in 2008. Lessons have been learned, says Jain.

> "Navigating the crisis without government money and coming out of the crisis intact has clearly made us stronger. We're gaining a lot of new business and new clients. Our commitment to making markets for them remains bedrock"
>
> Josef Ackermann, Deutsche Bank

"In 2008, we had a certain amount of principal positioning on second-order risk – correlation and dividends mainly. Simultaneously, we had a large retail structured products business, which sometimes required us to assume large, unhedgeable concentrations of risk. Not only did we replace our management in that business, but we also stepped up our controls. Like others, we learned from the crisis and applied new measures. We now have a different approach, and at the heart of it is a rebalancing within the equity derivatives business away from an overreliance on retail structured products and towards institutional client flow business," he says.

The approach appears to have served Deutsche Bank well last year, enabling it to record positive net revenues in its corporate

Photo: Scott Williams

Garth Ritchie (left) and Ram Nayak, Deutsche Bank

and investment banking business throughout the first nine months of 2010, despite the sovereign crisis in the eurozone and another bout of volatility in equity markets. May was particularly tricky for market participants, with the Greek crisis reaching its peak and a spike in volatility causing sharp declines in revenue across a number of equity derivatives dealers. This time, Deutsche escaped unscathed. Net revenues in sales and trading (debt and other products) reached €2.1 billion in the second quarter, down slightly from €2.3 billion for the same period in 2009. Net revenues for sales and trading (equity), meanwhile, was reported at €642 million – down from the €927 million in 2009, but with no losses in equity derivatives. Key to the performance was the new focus on institutional client flow business, and a determination to stop warehousing significant amounts of unhedged, complex risks for long periods.

"Our philosophy now is that we don't want to be short convexity, and we had a clear risk-off view during that period. We felt the potential for large market moves and a reduction in liquidity was such that if we didn't need to hold any risk, we should be very light. So we weren't affected one way or the other during that period," explains Garth Ritchie, global head of equities at Deutsche Bank in London. "We are absolutely an originate-to-distribute business, and while we are comfortable to warehouse risk under the right parameters, our intent is not to be in the storage business – it is to continue to move it."

This client-driven focus prompted Deutsche to set up a new cross-asset structuring group at the end of 2009. Headed by Ram Nayak, the team aims to solve client problems regardless of asset class. In addition, forthcoming regulatory changes mean financial institution clients are focused on balance sheets, risk-weighted assets, capital, liquidity and funding – and as such, a flexible approach is vital, says Nayak.

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> Garth Ritchie, Deutsche Bank

"Clients are looking to address risks they now perceive as correlated, and they are looking to address these multiple correlated risks across all asset classes. They want to know specifically how, if you recommend one change, it will affect everything else," he says. "There is no way you can do this in a product-siloed business."

This approach was important in a transaction for Salt Lake City-based Zions Bank in August 2010. The bank held a significant amount of capital against poorly performing trust preferred security (Trups) collateralised debt obligation (CDO) transactions, and wanted to free some of this capital without selling the instruments and crystallising a loss. In response, Deutsche Bank provided $1.16 billion worth of protection on 51 Trups CDOs via a total return swap, under which Deutsche pays the interest due on the CDOs and par minus recovery at maturity and receives a fixed coupon from Zions Bank. The risk was subsequently sold on to a small number of investors.

Essentially, the investors provided first-loss protection on the portfolio, enabling Zions Bank to increase its Tier I common to risk-weighted assets ratio from 7.91% to 8.59%, while also allowing the bank to access potential upside above a certain level if the underlying securities recovered.

"This is a client business on both sides – the origination of structured risk and the distribution of that risk in a slightly different form. We had a good understanding of the investor base and saw that the demand for a certain type of structured risk was coming back. We were able to tailor our solution so it addressed the three things the client needed – better capital, reduced downside risk and the avoidance of a distressed asset sale – and meet the needs of investors on the other side. The transaction was able to tick all the right boxes and was also accepted by the regulator," explains Nayak.

Other US banks are looking to emulate the trade, and further deals are expected in 2011, adds Nayak.

Another structured risk management solution involved longevity risk. In February 2010, Deutsche Bank executed the largest longevity transaction to date with the UK pension scheme of German car manufacturer BMW (*Risk* January 2011, pages 100–101). The £3 billion transaction was structured as an insurance contract via Deutsche's insurance subsidiary Abbey Life, which meant it could be accounted for on an accrual basis rather than be marked to market. It was also covered under the Financial Services Compensation Scheme, a UK compensation fund of last resort for customers of authorised financial services firms.

The transaction itself has several complicated features – the contract runs until the last premium has been paid or the last pension payment made, as well as covering spouses and other dependents, rather than the pensioners only. However, the trade is notable for another reason. Deutsche warehoused a portion of

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the risk for six months, and was subsequently able to sell part of this on to a small number of investors in the form of a structured note. The coupons and principal repayment of the 15-year note are dependent on the observed longevity of the pension fund scheme members, but the investment has an expected internal rate of return (IRR) of 10%.

In earlier trades, the risk was absorbed by the reinsurance sector – a reliance that could potentially limit the number of future deals as appetite for this type of risk is exhausted. This transaction taps into a new pool of capital market investors – and Michele Faissola, global head of rates and commodities, thinks a broader universe of buyers will be interested in these types of assets.

"We have a large pipeline and we have been marketing this idea to a broader spectrum of clients. Investors have shown a lot of interest. All the ingredients are there – it is an uncorrelated asset and the risk is relatively straightforward to understand. You also have an attractive IRR because, at the moment, the market is very asymmetric. I think there will be a demand, but how quickly it will develop is difficult to say," he says.

Dealers reckon the onset of Basel III and Solvency II will mean these types of multi-faceted, risk-reducing transactions will increasingly become more common as clients look to optimise balance sheets and lessen their capital burden. And Deutsche Bank has looked to further position itself to benefit from this trend by integrating its banking and markets business under Jain last year.

In parallel to the regulatory capital rules, new legislation on OTC derivatives will be implemented over the next few years, and is expected to have a similarly radical impact on the derivatives industry.

Regulators on both sides of the Atlantic will insist a large proportion of the derivatives market is cleared through CCPs – and this presents a new business opportunity for dealers. Only the largest banks are likely to be able to sign up directly to multiple CCPs as a result of the demand on resources. Everyone else will need to hook up via a clearing member (or a futures clearing merchant, to use US terminology). This has sparked something of an arms race among the largest dealers to get their client clearing operations up and running.

It is a close contest between a small number of banks, but Deutsche is among the leaders. It has set up a single, multi-asset clearing platform for OTC derivatives, dbClear, and announced in April it had electronically executed and cleared an interest rate swap through its electronic trading platform Autobahn and dbClear, linking through to SwapClear, the interest rate derivatives clearing platform run by London-based LCH. Clearnet. In October, dbClear was used to clear an interest rate swap on the Chicago Mercantile Exchange (CME) Group's clearing platform, CME Clearing, on behalf of hedge fund

Anshu Jain, Deutsche Bank

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> **Anshu Jain, Deutsche Bank**

Citadel. And in November, an interest rate swap between Deutsche and a US asset manager was executed electronically via the Tradeweb platform and cleared through CME Clearing, with Deutsche Bank acting as clearing member.

"All the pieces are coming together, but we are not seeing large volumes daily yet. We are ready, but there is some delay on the client side – very few clients are ready for clearing," says Faissola.

Clearing presents a number of operational challenges for dealers and clients – meeting margin calls, the segregation of client margin, portability and netting between cleared and non-cleared trades, not to mention the lack of netting if a portfolio is split between multiple CCPs. In one key aspect, however, clearing will provide some level of certainty for end-users – pricing.

It is now generally accepted that derivatives transactions backed by collateral – including cleared trades – should be priced using overnight indexed swaps as a discount rate. Non-collateralised trades, or those based on one-way credit support annex (CSA) agreements, are much more complex, however. Many of the large dealers now take their own cost of funding into account when pricing uncollateralised swaps, meaning prices can differ markedly between banks. Dealers also

need to consider credit risk, liquidity and capital requirements.

Faissola claims Deutsche Bank takes all this into account in its prices, and even considers an indicative CVA capital charge under the Basel III requirements. "You need to consider the balance sheet consequences in the context of Basel III, and we run all these scenarios. For certain elements, the rules have only recently been finalised, but we have been able to give a conservative range of outcomes and allocate certain capital. Once you have that capital, you can then apply the return on equity you might want to have," he says.

A number of dealers claim many smaller banks are not taking all these factors into account when pricing, which can lead to notable discrepancies, particularly on long-dated, off-market uncollateralised swaps. Despite this, clients have overwhelmingly praised Deutsche for its competitive prices. Some rivals suggest this is because the bank has been overly aggressive in certain business lines on occasion.

To some extent, Faissola says this can be explained by the bank's credit risk management system, which uses cross-margining tools to identify offsets across the entire portfolio and consider the incremental risk of each new trade, as opposed to simply adding on a credit charge on a standalone basis. However, he concedes there is a relationship element to it, too. "Each single transaction needs to be analysed and priced properly, but then you need to have a common sense approach as well. There is a franchise dimension," he says.

Some clients have also noted Deutsche has been much more aggressive in the US institutional client equity derivatives space over the past year – something Ritchie acknowledges. "We historically had a more proprietary-oriented equity derivatives business in the US, and that's no longer the model we wish to follow. We are a client-oriented business and we want to penetrate the institutional client business more deeply," says Ritchie. He denies that means the bank has aggressively tried to buy market share, though.

One of those client relationships has been with the US Treasury. In November 2009, Deutsche was chosen as sole bookrunner on a $2.7 billion sale of US bank warrants, accumulated during the Troubled Asset Relief Program (Tarp). The sale comprised warrants on seven US financial institutions – Bank of America, Capital One, JP Morgan, Signature Bank, TCF Financial, Texas Capital and Washington Federal – and involved a Dutch auction methodology. The deal was actually the result of a year-long discussion with the Treasury department, and required a changing of the rules on the New York Stock Exchange to enable the instruments to be listed. The warrants were distributed to institutional investors, convertible bond funds, hedge funds and bank prop trading desks, as well as some retail investors.

The bank has subsequently acted as sole bookrunner on further warrant sales in 2010, including those on Comerica Incorporated, First Financial Bancorp, The Hartford Financial Services Group, Lincoln National Corporation, PNC Financial Services Group, Sterling Bancshares, Valley National Bancorp and Wells Fargo. However, some participants have suggested Deutsche was only chosen because it wasn't a US bank and so didn't accept Tarp funds. Ritchie disagrees.

"At the time this happened, a few large US banks had already repaid their Tarp money. We know other banks were pitching. If you look at the timeline of events, we reached out to the Treasury on a regular basis from late 2008, did lots of analysis for them, and ultimately I think they looked at the content of our pitch and liked it," he says.

> "There are other guys that are competitive, but Deutsche has always been there when others have said 'we don't have a line for you' "
>
> A US asset manager

One of the biggest themes of the year, however, was the eurozone sovereign debt crisis. As a major European bank, Deutsche has had a ringside seat as the Greek crisis cranked up in the early part of last year. The firm's research team had anticipated Greece would face problems as early as August 2009, which prompted Deutsche to reduce its sovereign risk exposure and bolster its sovereign debt origination and trading teams at the start of 2010. Fundamentally, though, the bank felt the eurozone would survive, giving it the confidence to continue to make markets throughout the period – something that appears to be backed up by clients who spoke with *Risk*.

"Deutsche has always been there," says one US asset manager. "There are other guys that are competitive, but Deutsche has always been there when others have said 'we don't have a line for you'."

The crisis has worsened in the past few months, with Ireland forced to request a bailout from the EU and International Monetary Fund in November, and attention turning to Portugal and Spain.

"We have never said it wasn't serious, but we believe Europe will continue to hold. And that has been at odds with a predominantly US view. But we fully recognise the risks," says Jain.

Deutsche Bank has long had a reputation for being aggressive, for taking down risk in large size and for pricing competitively. Despite the move away from prop and a reluctance to warehouse less liquid, unhedgable risks for long periods, this appears to remain a feature of Deutsche's business to some extent. The question some have asked, though, is whether the acquisition of a majority stake in Postbank represents a reining in of the investment bank in favour of commercial and retail banking. Officials within the bank are adamant it does not, pointing out the net income before taxes target for the investment bank in 2011 was set at €6.3 billion in December 2009 – 63% of the total. For his part, Jain says the acquisition represents an important diversification of the bank's funding base. "Postbank has been welcomed by colleagues from across the bank as an incremental and important balancing of the group," he says. "Having an even bigger stable retail deposit base to offset our wholesale assets is exactly what Basel III is encouraging banks to do. This investment – which is our third major acquisition since the crisis began – balances further our earnings diversification, but more importantly our funding diversification."

Deutsche Bank hasn't been immune to the crisis, but its senior management believes the firm has emerged stronger as a result. "Navigating the crisis without government money and coming out of the crisis intact has clearly made us stronger. We're gaining a lot of new business and new clients. Our commitment to making markets for them remains bedrock," says Josef Ackermann, chairman of the management board and group executive committee at Deutsche Bank. ■

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INFLATION DERIVATIVES HOUSE OF THE YEAR
DEUTSCHE BANK

Inflation desks experienced two extremes in 2010. The market was initially driven by fears about an economic slowdown and Japanese-style deflationary scenario in the US, as well as the escalating sovereign debt crisis in the eurozone. Certain clients were so worried that some senior inflation traders joked about working on the deflation, rather than inflation, desk. Things have changed recently. Sovereign worries continue to preoccupy European investors, but markets have also become nervous about the prospect of rampant inflation, fuelled by the November 3 announcement that the Federal Reserve would purchase $600 billion of long-term Treasury bonds, dubbed QEII.

"There was a period of three months where all people talked about was lower Treasury yields and the likelihood of deflation. That has passed, and I think people now appreciate the Fed has actually been lowering Treasury yields with a view to avoiding deflation at all costs. So there's less fear about deflation now than there was four or six months ago," says Paul Canty, global co-head of inflation at Deutsche Bank in London.

Uncertainty over the path of future inflation has fostered a buoyant market in inflation options over the past year – particularly for zero-coupon options. This marks a change from previous years, when the market was dominated by structured product issuance, with year-on-year options more common. Dealers say the amount of year-on-year options traded in 2010 has been similar to 2009, but zero-coupon option volumes have increased almost threefold.

One particular zero-coupon option trade has done much to spur client activity – and Deutsche Bank was one of the banks involved. During the first six months of 2010, Toronto-based insurer Fairfax Financial purchased deflation protection worth $21.539 billion in notional, paying $173.7 million in premium, according to the firm's second-quarter financial statements. The 10-year zero-coupon 0% options were denominated in dollars, euros and sterling, and were executed by Deutsche Bank and Citi.

The other side of the trade was largely taken by California-based fixed-income manager Pimco, which reported it had sold more than $8 billion of 10-year zero-coupon 0% inflation floors in a filing dated August 27. The floors were sold in return for more than $70 million in premium, with Deutsche and Citi again involved as counterparties.

The transaction made perfect sense for both participants, says Daragh McDevitt, London-based global head of inflation-linked structuring at Deutsche Bank. For Fairfax, the 0% floors act as a hedge against deflation and the impact that would have on its equity portfolio. At the same time, Pimco was able to cash in on 0% inflation floors embedded in its sizable portfolio of Treasury inflation-protected securities (Tips).

Dealers say the headlines generated by the trade had a positive impact on the market, encouraging other clients to express their views on the direction of inflation by buying or selling zero-coupon options. "It sparked interest because you have very intelligent investors on both sides who are taking opposite sides of the trade," says McDevitt.

During the first six months of 2010, deflation protection was seemingly the trade *du jour*. Since then, quantitative easing has encouraged more clients to sell implied inflation volatility at levels that look expensive. In particular, many market players have looked to play inflation volatility versus interest rate volatility – for example, by buying interest rate caps and selling inflation caps at similar strikes. "We've seen a lot of clients coming in on the same side as Pimco, viewing the probability of deflation priced in by these options to be inflated. They are either selling the options embedded in their bond portfolios, selling the options outright or entering into some kind of interest rate options strategy," says McDevitt.

To enable a broad range of investors to benefit from a spike in implied inflation volatility from May, Deutsche Bank structured a product called the DB Deflation Note. Essentially, the product pays an above market return minus a series of leveraged year-on-year inflation floors struck deep out of the money.

> "I think people now appreciate the Fed has actually been lowering Treasury yields with a view to avoiding deflation at all costs"
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> Paul Canty, Deutsche Bank

According to Deutsche Bank, a five-year euro-denominated DB Deflation Note would pay a return of 4.56% a year so long as year-on-year eurozone inflation prints above -2%. For investors to receive only their principal, eurozone inflation would have to print at –3.67% in a single year or –2.34% every year. Such levels were unseen during the aftermath of the financial crisis and remain unthinkable to many market participants.

"We tried to sell it as an alternative to credit risk. If you have a credit-linked note or a bond, your principal is guaranteed unless there is a default by the issuer – but there is a remote risk they default. This is the same kind of idea. You have a very remote tail risk with respect to inflation that would lead to some of your coupon and principal being lost," explains McDevitt.

The product also helped Deutsche Bank mitigate its tail risk in

Paul Canty (left) and Daragh McDevitt, Deutsche Bank

inflation. For the dealer, the product pays out if extreme deflation occurs – a scenario banks have typically struggled to hedge themselves against. Around $10 million in notional has been issued so far, with the bank offering a number of variations involving different strike levels, as well as the sale of inflation caps to provide additional returns. McDevitt says the firm is currently working on a version that would involve clients selling put options on sovereign debt. In other words, instead of receiving their principal back at maturity, investors would receive government debt in their own currency if a certain barrier is breached.

"We're working on a hybrid. So effectively, you only get the payoff or you get put a bond. Obviously, if you're an issuer or individual in a particular country, you're generally happy to take sovereign risk on that country – so it's just an embellishment on an existing trade," he says.

The other major theme of the year was the sovereign debt crisis. Deutsche was active throughout the period, clients say – particularly in Greek inflation-linked debt, when it continued to provide liquidly along with one or two others. Successive downgrades by Standard & Poor's and Moody's Investors Service to below investment grade meant Greece dropped out of key inflation-linked bond indexes, causing investors tracking those benchmarks to dump Greek linkers.

"While the whole furore was overdone, there were about €500 million ($661 million) of bonds that were affected. It caused what was a reasonably illiquid market in Greek inflation-linked bonds to sell off further, generating concern and mark-to-market losses for some portfolios," says McDevitt.

Despite the market conditions, the bank was able to tap into its local client base to match buyers and sellers. Buyers predominantly included Greek institutions that were familiar with the situation and happy to take Greek sovereign risk, says McDevitt. "If you hit prices that wide, the market immediately reprices, so you're increasing volatility. We were able to calm things down by taking large legacy positions and placing them with people who frankly thought the whole thing was overdone and there was value in those bonds," he says. Overall, Deutsche claims to have sourced and placed more than €2 billion of Greek sovereign debt during the crisis.

> "It wasn't that many years ago that Deutsche Bank didn't punch according to its weight in inflation. That was recognised and we've worked very hard to bring it in line with the rest of our businesses"
>
> Daragh McDevitt, Deutsche Bank

The dealer has also had experience with less-troubled sovereign markets. In July, Deutsche Bank was appointed duration manager of the UK Debt Management Office's largest ever inflation-linked gilt syndication. The syndication of £6 billion of 2040 linkers went smoothly, pricing at £89.914 per £100 nominal, equating to a gross real redemption yield of 1.02%.

Elsewhere, Deutsche Bank held more than €580 million in assets under management within its range of inflation exchange-traded funds by late December 2010. Its offerings include funds providing exposure to eurozone inflation-linked bonds, Tips, UK inflation-linked gilts and five-year eurozone inflation swaps.

With increasing activity from a more diverse set of players including pension funds and insurers, the inflation derivatives market has come a long way over recent years. So too has Deutsche Bank's inflation offering – a fact acknowledged by McDevitt. "It wasn't that many years ago that Deutsche Bank didn't punch according to its weight in inflation. That was recognised and we've worked very hard to bring it in line with the rest of our businesses." ■

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HEDGE FUND DERIVATIVES HOUSE OF THE YEAR

DEUTSCHE BANK

Structuring and trading derivatives linked to hedge fund returns used to be big business for banks and investors alike, but the asset class has changed dramatically over the past three years. The poor performance of many hedge funds during the financial crisis forced scores of managers to impose gates to halt investor redemptions, leaving banks scrambling to hedge derivatives linked to those funds.

Many institutions drew back from the market altogether after suffering stinging losses in late 2008, leaving only three or four dealers actively running fund-linked desks. Fast-forward a little over two years and the asset class continues to be thinly populated by banks, but ongoing investor appetite for fund-linked products means there is still a market for those dealers with the expertise and resources to manage the risk and structure transparent and liquid products.

"People still believe there is alpha to be delivered by hedge fund managers, but they don't want to accept the risk that surfaced during the crisis, whether that is the risk of gating and suspension, fraud risk, prime broker risk or liquidity risk. The key challenge in this market is to deliver the alpha performance to investors but in a format that mitigates the risks," says Stephane Farouze, global head of fund derivatives at Deutsche Bank in London.

Over the past 18 months, Deutsche has raised $3.5 billion of assets through its hedge fund exchange-traded funds (ETFs) and Ucits III-compliant hedge fund products. The bank has restructured roughly €1.2 billion of impaired positions for institutional clients and executed more than 8,000 secondary market trades in 2010. It has also committed significant lending facilities with a large number of counterparties.

Stephane Farouze, Deutsche Bank

Clients praise Deutsche's commitment to the business and expertise in dealing with complex transactions. One London-based portfolio manager recalls how the bank provided leverage for a fund-of-hedge-funds investment in 2007 that was exposed to 35 underlying managers. When three of the funds were discovered to be exposed to a fraud in late 2008, Deutsche might have backed away, but instead saw the trade through to liquidation.

"While the investment has not been a positive experience, Deutsche Bank has given support from start to finish and provided first-rate servicing. We've been through three audits for the funds and they have worked nights to make sure they got properly settled," the portfolio manager explains.

In an environment where investors are generally only interested in getting access to hedge fund returns in a liquid and transparent format, Deutsche's biggest achievement over the past year has been the growth of both its ETF and Ucits business lines. The bank launched the first ETF linked to hedge fund returns in March 2009, which is now listed in Japan, France, Germany, the UK and Switzerland, with upcoming listings in Canada, Mexico and Singapore. In total, the product has attracted $1.5 billion in assets.

"There still isn't anything else like this in the market. It's unique because it's the only product in the world that gives real hedge fund returns with live liquidity, so investors can enter and exit the market whenever they choose. We have been able to do it because we have all the necessary infrastructure, including a managed account platform, secondary market making and risk management systems to track the underlying funds at all times," says Tarun Nagpal, European head of fund derivatives at Deutsche Bank in London.

At the end of 2010, Deutsche Bank was preparing to launch a new equity long-short hedge fund ETF with equally weighted exposure to 17 leading equity long-short funds, including BlackRock, GLG and Marshall Wace, with daily liquidity. "This should be a pinnacle product of equity investing because you can

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> **Stephane Farouze, Deutsche Bank**

suddenly do equity long-short with live liquidity, which has never been available before. We expect this will unleash huge pent-up demand from long-only funds, wealth managers, mutual funds and funds of funds," says Nagpal.

As well as ETFs, Deutsche has worked on a number of Ucits III-compliant hedge funds over the past year. In 2010, the bank helped to structure 15 new funds, including the Active Trading Fund (ATF), an absolute return multi-manager fund launched in May by London-based investment management firm Strategic Investments Group, in partnership with alternative asset management firm Permal Group. The ATF invests entirely in separately managed accounts, with each account set up and owned by the fund, as well as being housed with State Street as custodian and administrator.

While the asset allocation and selection of managers is handled by Permal Group, it is Deutsche Bank's Ucits-compliant managed account platform and risk monitoring infrastructure that underpin the fund. Because the ATF itself owns every underlying position traded by the managers, there is less danger of the liquidity mismatch, gating or suspension that caused problems for traditional fund-of-funds managers during the crisis, says Farouze.

"The ATF is a seminal product that directly answers the demand for greater transparency, independent risk control and real weekly liquidity in funds of funds. It completely removes the risk of illiquidity or gating because the individual managers have nothing to do with the liquidity – all they are doing is trading the account to a Ucits-compliant standard," he explains.

Delivering the managed account platform, dbX, in a customised format to the ATF was a significant coup for Deutsche Bank – and something it also did for another manager, Geneva-based EIM Group, raising $1 billion of assets on the two ventures during the course of the year.

The standard dbX platform now has $4.5 billion of assets under management, and the bank added 15 new managers in 2010, while also making substantial investment in the integrated dbX Vision risk management system. Many of the bank's clients see it as a market leader in managed accounts and say it has few serious competitors in the industry.

"In our experience, dbX is certainly one of the market leaders. Managers go through an extensive due-diligence process before they are admitted to the platform, and Deutsche Bank is constantly thinking about new ways to innovate and position the product in a way that is simple and worthwhile for investors," says Barry Goodman, New York-based director of trading at Millburn Ridgefield Corporation, an alternative asset management firm.

Restructuring of crisis-hit complex transactions also forms a significant part of the fund derivatives business. Of the roughly €1.2 billion of deals Deutsche Bank restructured over the past year, one of the most complex was a principal-protected note linked to a self-managed portfolio of single funds and funds of funds, held by a southern European savings bank. After being selected by the client in late 2009, it took the Deutsche team more than six months' work to restructure the position.

The savings bank had invested in the note in 2007, but many

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Tarun Nagpal, Deutsche Bank

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of the underlying funds had become illiquid or impaired during the crisis, resulting in exorbitant regulatory capital requirements under Basel II. Deutsche Bank moved the client out of its distressed positions and switched it into a portfolio of managed accounts, where liquidity would be guaranteed. In some cases, the trades were bought on a secondary market basis and turned into cash, with the money used to invest in managed accounts. In other cases, where funds were in liquidation, any cash generated in redemption proceeds was used to invest in managed accounts.

The client also needed to maintain the principal protection mechanism, achieved through constant proportion portfolio insurance (CPPI), as a result of its internal investment restrictions. Deutsche restructured the delivery mechanism of the CPPI to a note issued under Deutsche Bank Luxembourg's fiduciary note programme, with segregation of collateral to mitigate issuer credit risk.

Meanwhile, a credit derivatives overlay was added, whereby the cost of the principal protection was reduced by selling a credit default swap referenced to the client's sovereign.

"In restructuring our deal, Deutsche Bank was able to apply unique innovation skills to build an adapted solution tailored around our risk constraints. We expect the inclusion of dbX funds in an aggregated portfolio to provide risk diversification, enhanced liquidity and more favourable deal economics," says a portfolio manager at the savings bank.

Use of collateral to mitigate credit risk and segregation of assets have become key issues for investors since the onset of the financial crisis – and many of the fund-linked trades executed by Deutsche Bank over the past two years have looked to address these points. "We try to overcome these widespread investor concerns by structuring trades in a fully collateralised or counterparty risk-neutral manner, so that if Deutsche Bank were ever to go bankrupt, clients wouldn't have a problem getting their assets back," says Nagpal.

Risk Awards 2011

DERIVATIVES RESEARCH HOUSE OF THE YEAR
DEUTSCHE BANK

Derivatives research desks are getting used to advising clients on how to avoid disaster. After the subprime crisis in 2007, the collapse of Lehman Brothers the following year and the threat of global recession in 2009, the focus last year was firmly on the eurozone sovereign crisis.

Readers of derivatives research say Deutsche Bank did a particularly good job in helping them navigate this crisis – starting in August 2009, when the bank warned the fiscal position of Greece had the potential to cause significant market volatility. That was just the start of a string of research pieces focused on sovereign risk.

In January 2010, for instance, the bank predicted equity market volatility would remain high for most of the year – in contrast to the consensus view across the industry.

"Our call to assume volatility would remain high was somewhat non-consensus – a lot of banks were predicting that volatility would go lower. It was very much a conclusion we reached by talking to colleagues in other asset classes, especially in credit, who were seeing a number of risks and drawing the conclusion that the situation was not as rosy at it looked on the equity side," says Nicolas Mougeot, global head of equity derivatives and quantitative strategy at Deutsche Bank in London.

The bank subsequently recommended buying European forward-starting variance swaps on the Dow Jones Eurostoxx 50 index. "At the time in mid-March, the risk-return profile was very interesting," explains Mougeot. "You could buy a six-month variance swap starting in three months at around 25 points, while all our signals were in the red, telling us that liquidity could be an issue again. That's actually what we saw subsequently in May and June when volatility increased at the height of the crisis."

The credit research team also focused on eurozone stress. "We were facing significant structural issues on the sovereign and banking side, and those took up a fair amount of our time last year," says Jean-Paul Calamaro, Deutsche's global head of quantitative credit strategy.

Deutsche's approach to the issue centred on the back-testing of bank and sovereign credit default swap (CDS) spreads to determine sensitivity to changes in systemic risk. Not all sovereigns and banks were the same, they found.

"The spread differential between banks across sovereigns was not well priced by the market. This was especially true when adjusting for the amount of systemic risk banks absorbed in periods of stress. We realised some banking sectors – the UK and the Netherlands – had relatively wide spreads for the amount of systemic risk they typically absorbed, while others – Portugal and France, in particular – had relatively tight systemic risk-adjusted spreads," says Calamaro. The analysts suggested a long-short strategy, with the short (risk) leg consisting of banks with narrow systemic risk-adjusted CDS spreads and the long (risk) leg consisting of banks with wide risk-adjusted CDS spreads.

Photo: Scott Williams

Caio Natividade (left), Jean-Paul Calamaro (middle), Nicolas Mougeot, Deutsche Bank

Like other market participants, the Deutsche Bank research team was sceptical about the rigour of the July stress tests conducted by the Committee of European Bank Supervisors (Cebs). "Our own report showed European banks needed significant recapitalisation, and the Cebs report pointed to anything but that," says Calamaro. Follow-up research on the likely course of the European Financial Stability Facility (EFSF) – the rescue fund first announced in May 2010 – was also widely welcomed. Deutsche published research in August that analysed three possible sovereign stress scenarios and predicted the likely spreads on EFSF bonds issued under each.

In addition, customers praised Deutsche's responsiveness to their enquiries and the breadth of its coverage. The bank has expanded in foreign exchange, commodities, fixed income and equity derivatives research over the past year – and it has needed the extra manpower. Research consumers are significantly more cautious and demanding now than a year ago, says Caio Natividade, director of forex and commodity strategy at Deutsche Bank.

"Customers are increasingly interested in the source of returns from particular volatility strategies and are using that as part of the decision process when they want to put on a trade. This is a jump away from the traditional approach and it was an area we concentrated on this year. We've been looking at how strategies that seem attractive today would have looked at different times and in different conditions – our clients find it very valuable to know trade ideas that make the most money are not always the most visually attractive. They're increasingly sophisticated about this," he explains. ■

Risk Awards 2011

BANK RISK MANAGER OF THE YEAR
DEUTSCHE BANK

Much like the three years preceding it, 2010 blew certain assumptions about bank risk management out of the water. The eurozone sovereign debt crisis that erupted early in the year led to market dislocations that caught some dealers off-guard, while the evolution of extensive new capital and liquidity requirements under Basel III also meant risk managers had to carefully consider the implications and plan for the new regime.

Deutsche Bank knows all about the disruption that can arise from market dislocations, having lost €4.8 billion in the fourth quarter of 2008 and €3.9 billion for the full year, a loss it admits was caused by a number of risk management failings in different areas of its business. But the subsequent changes the dealer has made to its risk function and governance structure underline the muscle of its risk management group.

The bank's governance structure, set in place by chief executive Josef Ackermann in 2002, is central to that strength, as it allows the legal, risk and capital (LRC) division to exercise full control over all the risks to which the bank is exposed. Managed by chief risk officer (CRO) Hugo Bänziger, LRC oversees not only market and credit risk management, but also Deutsche Bank's treasury, legal and compliance functions.

"Strong corporate governance matters greatly, and if you don't have a single platform where everything is centrally reported, with a CRO at the board level, you cannot properly manage the risk in the books. What made my position unique from the beginning was that I was always on the board and had a comprehensive view of risk across the bank," says Bänziger.

Bänziger has held the CRO post on the management board since 2006, having previously worked in senior roles at Credit Suisse and Deutsche Bank. He is widely respected in the CRO community as a rigorous, effective leader who has built up a risk culture where every exposure is monitored on an ongoing basis.

"Not many other banks do it as well as Deutsche Bank. They have full control over all books, leaving no hidden books without limits. It's stringently managed from top to bottom and if there is a problem, within a split second they know who is responsible. On top of that, they have also built up enormous transparency in their systems and procedures," says the CRO at another German financial institution and formerly a senior risk manager at Deutsche Bank.

But Deutsche's record is by no means unblemished, and Bänziger admits to four distinct mistakes that were made during the crisis and led to the heavy losses. First, the bank's proprietary trading operations had been allowed to grow too large in the years leading up to the crisis, culminating in losses of €1.7 billion in credit prop trading and €742 million in equity prop trading over the course of 2008. Deutsche Bank cut back its prop trading by

Hugo Bänziger, Deutsche Bank

roughly 60% in early 2008, says Bänziger, closing the credit desk and shrinking the equity desk. It subsequently shut dedicated equity prop trading completely last year.

"Prop trading before the crisis comprised up to 15% of the revenues of our global markets business, which proved too much when the market environment changed. Consequently, we made the decision to cut it back early on, in October 2007, but we were still too exposed and had to take losses. As risk manager, I can't always bring the losses to zero but I can make sure they are at a palatable level," says Bänziger.

The bank's second mistake, he says, was a failure to hedge the market risk in leveraged finance and high-yield bonds, in the belief the market would remain sufficiently liquid. But when liquidity dried up and spreads widened dramatically during the crisis, Deutsche was forced to liquidate portfolios and write down €1.7 billion on leveraged loans and loan commitments in 2008.

Meanwhile, the bank lost €1.4 billion in equity derivatives in 2008, mainly in the fourth quarter, as a result of unprecedented

spikes in volatility and correlation, alongside falling dividend expectations. The losses were incurred because the bank's hedges had been imperfect and long-term equity derivatives positions had been hedged with short-term products, says Bänziger. Finally, the bank lost €3.2 billion in credit trading in 2008, mainly because of a widening in the basis between cash bonds and credit default swaps.

A common thread running through the problems in equities, credit and leveraged finance was a tendency to underestimate the hedging requirements in different books and to put on hedges that didn't perform as planned when markets moved in unexpected ways. "Before the crisis, it was fairly common practice to take an illiquid product and hedge it with a more liquid product or an index, creating mismatches between the product and the hedge. That happened in a number of different books and caused the bulk of our problems when there were idiosyncratic market moves during the crisis," says Stuart Lewis, deputy CRO at Deutsche Bank in London.

While Deutsche owns up to the mistakes that were made, it has been proactive in trying to learn lessons and make changes wherever it can. The bank now sets more aggressive limits on basis risk and has made a concerted effort to ensure hedges better match the underlying product. In leveraged finance, for example, limits have been introduced on how much subordinated debt can be committed at any one time, and more stringent measurement and hedging of market risk has been mandated.

Fundamental changes have also been made to Deutsche Bank's governance structure, with more formal quarterly risk management reviews in every business unit, as well as regular 'business unit deep dives'. This involves a comprehensive review of a particular business to analyse positions and also to highlight risk management issues that arise from new projects or changes in bank processes that might otherwise go undetected, explains Lewis.

In addition, the process of approving new products has been overhauled and made more rigorous, he adds. Previously, the bank processed up to 2,500 new product approval requests each year, which were approved in a fairly *ad hoc* way, often with conditions attached regarding necessary platform development to handle the new structures. The risk function now takes a more active approach to ensure risks are fully understood and the bank's infrastructure is able to handle every new product approved.

"A lot of the changes since the crisis have been about structure and governance, and that has led to conversations where risk managers can properly challenge business heads and be more aggressive in setting risk appetite. One of the most important objectives has been to make sure the bank sets a conservative risk culture that is fully understood from the front to the back office," Lewis explains.

> "Not many other banks do it as well as Deutsche Bank. They have full control over all books, leaving no hidden books without limits. It's stringently managed from top to bottom..."
>
> CRO at another German financial institution

The more stringent approach to risk management was tested in the first half of 2010 as Greece's fiscal problems spread to other peripheral European sovereigns, causing uncertainty and volatility that hit the equity markets particularly badly in May. Some dealers that had managed to avoid losses during previous dislocations were caught short volatility, causing sharp reductions in revenues. Goldman Sachs, for example, saw its equity trading revenues plunge from $1.47 billion in the first quarter to $235 million in the second quarter as a result of high volatility in May.

Deutsche Bank was certainly not immune to the volatility but was less badly affected, reporting revenues of €642 million in equity sales and trading in the second quarter, down from €944 million in the first quarter.

Although the firm declines to quantify its exact exposures to Greece or other peripheral European countries, it was alert to the potential problems early on. At the start of December 2009, the risk committee made a detailed presentation to the Deutsche Bank board, which tested a number of different stress scenarios that could evolve in southern Europe.

The presentation stressed a baseline scenario, in which Greece would muddle through and avoid default, and a second, more severe scenario, which would see Greece default and serious contagion spread to Spain, Portugal, Italy and Ireland. Under both scenarios, the analysis projected the impact on revenues, risk-weighted assets and capital. Such stress testing and transparency at board level at such an early stage put Deutsche Bank ahead of some of its competitors and enabled it to position its book accordingly in the first quarter.

"We had been in a de-risking phase throughout 2009 and were generally fairly risk-averse around the banking sector in certain countries. When the sovereign debt crisis escalated in April, we had already presented our stress test to the board and had time to adjust our book and take remedial action in the first quarter," says Lewis.

In its second-quarter results, Deutsche disclosed negative exposures to the central and local governments of Ireland and Portugal, an exposure of €1.1 billion to Greece, €1 billion to Spain and €8.1 billion to Italy.

Regulation was another major theme for all risk managers in 2010, with the finalisation of the Basel III rules. On December 16,

the Basel Committee on Banking Supervision released the final text of the new capital, liquidity and leverage standards, just a year after it first published proposals for consultation. The rules will require banks to triple their reserves of common equity capital to 7% by 2019, hold higher levels of liquid assets and stable funding, and comply with a minimum Tier I leverage ratio of 3%.

The Basel Committee is also continuing to work on rules that would require systemically important financial institutions (Sifis) to have higher loss-absorbing capacity, although it has still to define exactly how such a framework will operate in practice.

In preparation, Deutsche Bank promoted Andrew Procter, formerly director of enforcement at the UK Financial Services Authority, to the role of head of government and regulatory affairs in April 2010. Procter is understood to have led Deutsche's dialogue with standard-setters and has been particularly instrumental in thrashing out certain new regulatory concepts, such as bail-in capital that would enforce a haircut on creditors when a bank is in difficulty.

Bänziger himself has been instrumental in preparing Deutsche Bank for Basel III and is working on a study to analyse the potential business prospects that might arise. Although the industry's focus has been consumed by the economic impact and changes that will be required to bank business models as a result of Basel III, he believes it is equally important to consider the opportunities that could be gleaned as banks make the transition to the new regime.

"Nobody talks about the opportunities that Basel III will introduce. In a market where the supply of credit shrinks – and it will shrink when the new capital requirements take effect – credit is naturally repriced and becomes more attractive again. So banks that have sufficient capital can grow their lending book, which is something we are actively considering. The sector will certainly be very different under Basel III, and there are undoubtedly other business opportunities that we have still to explore," says Bänziger.

Some analysts have pointed out that Deutsche Bank has among the lowest capital levels under Basel III when compared with its rivals. In a report published in September, Kian Abouhossein, a banking analyst at JP Morgan, estimated Deutsche Bank had one of the smallest Basel III equity Tier I ratios among 10 competitors.

Stuart Lewis, Deutsche Bank

However, the firm has proven its ability to increase capital when needed, raising €10.2 billion from a rights issue on October 6, most of which was used to finance the acquisition of Deutsche Postbank. In its third-quarter results, Deutsche reported a core Tier I capital ratio of 7.6% and Tier I ratio of 11.5%, with total regulatory capital of €33.9 billion.

The Basel Committee has been much stricter as to what instruments will qualify as Tier I capital in future. Nonetheless, Bänziger believes the phasing out of certain instrument types from core capital and the increasing of ratios under Basel III should be manageable over time. He is concerned about other parts of the framework, though – particularly the treatment of Sifis.

"The banking system will certainly carry higher cost in the future, but will not necessarily be more resilient. Implementing a capital surcharge for Sifis is a totally flawed concept. The banks that were bailed out during the crisis, such as IKB Deutsche Industriebank and Northern Rock, probably wouldn't have been identified as Sifis but they turned out to be systemically important in the crisis. It would be more sensible to tackle the ripple effects and transition mechanisms that cause banks to get into trouble. That could be done through international limits on large exposure rules for interbank lending, for example," says Bänziger.

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