OPERATIONAL PERFORMANCE OF BROKERS

Market Survey
OTC Derivatives Products
2005

Summary of Findings

Version 1.0

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1. Introduction

1.1 Scope of Study

This document is a summary of the report of the Operational Performance of Brokers · Market Survey (OTC Derivatives), 2005 carried out by Z/Yen Limited for a consortium of 9 major Banks.

The study was performed based on individual, predominantly face-to-face interviews using a structured questionnaire, as developed by Z/Yen and the participating Banks. 49 leading "Buy-Side" users of derivatives, and/or in some cases, their Outsource Agents (the Clients) were interviewed between 1st August and 30th November, 2005.

The Sponsoring Brokers were as follows:

- ABN AMRO
- BNP Paribas
- CSFB
- Deutsche Bank
- JP Morgan
- Merrill Lynch
- Morgan Stanley
- Royal Bank of Scotland
- UBS

A list of the Clients interviewed can be found in section 5.

1.2 Approach

The approach adopted for this study was to:

- Z/Yen set up and facilitated a series of workshops with the Banks to agree and finalise scope, structure, format and questions;
- The Banks selected the Clients who they wished to be interviewed and introduced Z/Yen to appropriate senior operations personnel;
- Z/Yen performed the interviews and documented responses and additional comments;
- Z/Yen published the findings and presented these to the Banks.

1.3 Confidentiality of Results

The Clients and the Banks provided information and comments on the basis that all data is confidential, that quotes are non-attributable and have requested Z/Yen to take the following steps to ensure that confidentiality of results is maintained.

- Reports have been produced individually showing ranking data for all Banks but with only one set of data identified, e.g., Banks will see their own ranked data but will not be able to identify data belonging to other Banks.
- Banks can see individual rankings from Clients only where the Client has specifically agreed for this ranking information to be shared.

1.4 Ranking Approach

Each Client was asked to complete a ranking template for Interest Rate, Credit and Equity Derivatives. The template contained ranking criteria on Core Transaction Management and Client Management. In addition, each Client was asked to weight the individual criteria in terms of their importance.

Unlike in Z/Yen's European and US Securities Surveys, where most clients ranked most or all of the brokers, many Clients in this survey only ranked 1 or 2 Brokers. Hence the overall number of rankings per Broker was lower (though higher than 2004), particularly for Equity and Credit Derivatives.

Scores have dropped sharply since last year but we believe that this is due to the overall fast growth in the market and a consequent drop in service levels. In addition, several banks have received similar overall scores, particularly for Credit Derivatives. We therefore believe that the ranking section of this report should be seen as a strong indicator of Broker performance rather than a definitive top-to-bottom performance table.

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2. Executive Summary

2.1 Overall Summary of Findings

2.1.1 Background

49 Clients were interviewed between September and November 2005. Clients interviewed were Investment Managers (49%), Hedge Funds (35%), Banks (10%), and Corporate (6%). 47% of the interviews took place in the UK, 33% in Europe, and 20% in North America.

This year the survey scope was extended to include Currency Derivatives and more detailed questions were developed around the Valuations Statement and Collateral processes.

2.1.2 Key Messages

A number of key messages came out of this year's survey, all of which have been recorded in Section 3 of this report. As with last year's survey, a high proportion of the Clients were Investment Managers and Hedge Funds. There is a strong trend amongst these counterpart types to increase their use of derivatives and this is reflected in the high standard of operations performance demanded from their Brokers.

The levels of service expected by the Clients was the same for each of the four asset classes covered in the survey. Client rankings were on average lower that last year with top Brokers being ranked as 'Satisfactory to 'Good' as opposed to 'Good' to 'Excellent' as was the case in the 2004 survey. Clients' comments during the interviews suggest that this is due to both a) a lower standard of service delivered in 2005 due to increased volumes and b) higher demands from professional counterparties, e.g., investment managers.

A. Quality of Service has Decreased

The overall scores given to Banks/Brokers by the Clients have dropped significantly since 2004. These rankings have been backed up by a number of specific comments by the Clients citing areas of poor performance. We feel that overall this may be a reaction to the extreme growth in the OTC Derivatives market over the last 12 months and the well-documented problems the industry has faced, particularly with confirmation processing. However, it is clear that underlying problems exist with the manual nature of OTC derivative processing and the lack of development of Client Service compared to the securities market.

Cost reduction has also been an important priority for all Brokers over the last couple of years. This has resulted in the transfer of Core Processing and, in some cases, Client Service to lower cost locations. In many cases, this has not been properly communicated to the Clients.

The Clients interviewed in this year's survey have expressed concern that the effects of this offshoring of Derivative Operations has resulted in a drop in the quality of service that they receive from the Brokers. This was not a view held by all Clients, some of whom felt that standards of service were continuing to improve, but a significant number of respondents saw this as an area of concern that Brokers needed to address.

A commonly held view was that Brokers had transferred processes too quickly and that the staff in the low cost locations and outsourcing companies had not received adequate training on either the products or the systems used to support the processes. In summary, Clients felt that the Brokers had generally done a poor job of migrating the processes and managing the expectations of their clients.

B. Some Progress in Process Automation

This year's results have seen an increase in the use of DTCC and Swapswire for trade confirmation matching. This had led to the phasing out of emailed or faxed copy of confirms and reduced the time and effort required to confirm a derivative trade. However, many Clients are still reliant on manual processes and so Brokers have to be able to provide a service that accommodates all methods. Implementation costs are still a barrier to automation at some of the smaller buy side institutions.

Clients were also frustrated by the varying formats and levels detail used by Brokers on their Valuation Statements. These are central to many of the controls that Clients require to manage their portfolios. Clients would like to be able to download information contained on the statements in order to be able to automate their reconciliation processes. This is not possible whilst each broker provides the information in a completely different format. Groups like the Data Standards Working group are working with various parts of the industry to address this.

An increasing number of Clients stated that they were using an outsourcer to process their derivative transactions. It is very important to Clients that Brokers provide a good level of service to the outsourcers since they have the responsibility to ensure that the relevant parts of the operations process are well managed and controlled.

C. Confusion over the Complexity of Bank/Broker Organisations

There is a good deal of contrast between the support model adopted by Clients and the one adopted by the Brokers. Clients' organisations are smaller with multi-discipline staff. Typically the operations team will be responsible for a number of derivative products and, in many cases, some cash products as well.

On the other had, Brokers tend to have a very large operations footprint and have moved more and more to a utility model which leverages the common attributes of derivatives in order to reduce technology and headcount costs. The push to outsource these processes serves to underline this. As a result of this mismatch, Clients tend to find it difficult and frustrating understanding the broker's organisation structure and would typically have to speak to a number of people in different departments and in some cases different time zones to get answers to their queries.

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D. Lack of Client and Product Knowledge

On the whole Clients viewed the level of knowledge that Broker's support staff possess as being in need of improvement. Clearly the upheaval generated by the migration of processes to outsourced staff is contributing to this view but other factors such as poor training and high staff turnover were also cited as reasons why Clients thought that the levels of product knowledge too low. Many European based Clients highlighted their desire to develop a good relationship with their counterparts at Brokers but this was not possible with the current staff turnover rates.

Knowledge of the Client's business was also mentioned as an area where Brokers need to improve. This problem seemed to be most relevant to the Valuation Statement process and the need by fund managers to produce an NAV based off external valuations. Staff at Brokers seemed unaware of the significance of this and why it is so important to provide timely and accurate information.

Some European based fund managers are required by their regulators to only include transactions in their portfolio for which they have a fully signed confirmation. Late confirmations, or the need to make corrections to legal names, have serious consequences for these funds - a point which seems not to be are not understood by many of the Brokers' operations staff.

E. Desire for more Proactive Client Service and CRM

Many Clients felt that they had to do much too much chasing in order to get the required level of service from Brokers. The same issues seem to come up again and again which implies that the Brokers are being too reactive. The commonly held view was that Client Relationship Managers and Client Service staff were not on top of enough of the issues and needed to be more familiar with the transactions which had caused an issue during the last settlement cycle in order to be able to prevent a repeat.

2.1.3 Core Transaction Management (Operations Best Practice)

Clients were asked to apply a weighting to 5 categories of Core Transaction Management (Operational Performance). The results were as follows:

	Interest Rate Derivatives	Credit Derivatives	Equity Derivatives	Currency Derivatives
Confirmation Timing	27%	25%	25%	28%
Confirmation Accuracy	26%	25%	22%	24%
Settlement Performance	21%	21%	25%	18%
Collateral Management	13%	16%	15%	16%
Client Valuations	12%	13%	14%	14%

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The weightings show a high degree of consistency across the 4 asset classes. Confirmations, as was the case last year, are the most important to clients with a combined weighting of about 50%. The message to Brokers is that they need to ensure that this core process receives a good level of resource and management focus in order to maintain high standards.

Brokers should continue to encourage and assist participants to start using tools such as DTCC and Swapswire to automate the confirmation process as much as possible. The indication is that the use of Derivatives by broker's clients is set to increase and so Brokers should provide information and support in order to ensure clients have a well controlled, scalable process.

Settlement Performance was also considered a key process and showed the most variance across the 4 asset classes. Equity Derivatives respondents placed a higher level of importance than the other 3 asset classes, whereas Currency Derivatives was weighted slightly below .

Collateral Management was given a lower than average weighting which was consistent across the 4 asset classes. Although clients were conscious of the fact that this is an important risk control function many tended to be net payers of collateral and placed the onus on the Brokers.

Surprisingly, Client Valuations were given the lowest average weightings. This may be explained by the fact that most clients saw this as a monthly process and had not considered as important on a day to day basis.

2.1.4 Client Management

For the purposes of this survey, the participating Banks/Brokers have agreed the following terminology:

- **Client Service (CS):** An individual or team who is/are the day-to-day contacts for Operational Issues.
- **Client Relationship Management (CRM):** An individual/team responsible for the overall operational relationship.

Clients were asked to apply a weighting to 5 categories of Client Management. The results were as follows:

Client Service (CS)	43%
Client Relationship Mgt. (CRM)	23%
Linguistic Skills	19%
Product Knowledge	10%
Regular MIS	5%

Client Service (CS) is by far and away the most important category of Client Management. The level of importance given to Client Service has increased since last year from 34% to 43%.

Client Relationship Management (CRM) remains at about the same level as last year at 23%. During the interviews a wide variety of opinions were offered about the level of importance of the CRM function. The level of importance that individual Client attach to CRM is highly correlated to how well they considered the Broker's CS to be. In other words, the Client felt that if a Broker's core transaction process was good and that CS was good then there would be no need for a CRM function at all.

Surprisingly, and in contrast to last year's findings, linguistic skills were rated as being important. This is a reflection of the number of European based Clients and is an increase of 8% over last year's survey. Product Knowledge and Regular MIS were considered less important but it should be noted that the weightings are relative and so the results should not be interpreted as these categories being un-important but just not as important as some of the other services provided.

2.1.5 Linkage of Operational Performance to Business

The number of Clients who conduct a regular ranking exercise was still only about 25% of the total. This is about the same as last year although some Clients did indicate that they had plans to commence a formal broker ranking process within 6 months.

All Clients described having an informal ranking process through which Brokers were measured on an exception basis. Clients would monitor how many errors were experienced relative to other Brokers and how much time was spent resolving issues. Since the Clients' organisations were generally much smaller than that of the Brokers, communication was much easier.

The selection of Brokers is still dominated by price, quality of ideas, and available credit, however operational performance can become a critical factor if there are serious or chronic issues which the Client feels are a significant risk to the business. In these situations the Client's operations staff will have 'power of veto'.

2.1.6 Penalisation of Banks/Brokers for Poor Performance

For Interest Rate, Equity, and Currency Derivatives, about 20% of Clients stated that they had penalised a Broker in the last 12 months. For Credit Derivatives, the number dramatically increased to 60%. Surprisingly, Clients were just as willing to suspend trading completely as they were to reduce volumes. The duration of the penalty was dependent on whether or not the Client was satisfied that the issue(s) had been resolved. This means that Clients were prepared to penalise the broker for an indefinite period if necessary.

A number of Clients stated that reduction in trading volumes may be done over time with no formal communication to the Broker involved. The reason given for penalising Brokers was typically "general poor service", or a chronic build up of issues over time which presented a risk to the Client's business.

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2.1.7 Customer Valuations

Despite receiving a lower weighting in the rankings, Clients were very concerned about the timeliness and accuracy of Valuation Statements received from Brokers. For some, this is a key daily control around their position and pricing. By far and away, the most sensitive period is at month end when funds have to report the NAV to investors. If they have structures, for which they are reliant on the Broker to provide a valuation, it is essential that they receive the Valuation Statement as quickly as possible in order to meet their own deadlines with investors.

Late reporting, or mistakes can be extremely damaging to Clients' reputations and would definitely result in a strong rebuke for the Broker involved. If this situation were to occur on a more than one occasion, then the Clients would review the usage of a particular Broker.

2.1.8 Strategic Direction - Initiatives Planned

As previously stated, Clients are looking to increase their volume of trading in derivatives as they use them more for hedging and to maintain the return on their portfolios. As such, they are looking to use tools which will enable them automate more parts of the process. This can already be seen in the increased use of DTCC and Swapswire.

Another theme that was picked up in the interviews was an increasing usage of outsourcers to support parts of the operations process. In some cases, these service providers were already providing Funds Administration and Clients have agreed to expand the scope of services. The point was made on several occasions that Brokers are expected to provide the same high standards of service regardless of whether they are dealing with the Client direct or their outsourcing agent. Clients hold regular meetings with their outsourcers and receive weekly KPI's for each Broker.

2.1.9 Client feedback on the Survey

For many interviewees it was the first time that they had participated in this type of survey for OTC Derivatives. The general feeling was that it was encouraging to see that the Brokers were investing in their relationships with Clients and were prepared to gather feedback.

Interviewees were happy to contribute, and liked the fact that the survey involved a face to face interview with an experienced derivatives expert.

All interviewees thought that the scope and level of detail required was about right although some mentioned that they used Commodity Derivatives and that these were not included.

All said they looked forward to reading the summary of the findings with interest and would be happy to contribute to a follow-up survey in 2006.

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2.1.10 Next Steps

Z/Yen will arrange 1-1 feedback sessions with the each of the sponsoring Banks.

The Clients who participated in the survey, will be sent a summary copy of the report and, if the demand is there, will be invited to attend a workshop/presentation of findings.

This survey can be repeated in 2006, or as a bi-annual process in 2007.

2.1.11 General Client comments/observations.

During the Client interviews, Z/Yen asked Clients if they had any additional input, either on

On Operational Service for OTC Products, Client observations/quotes included:

- *"The Brokers tend to give us a good service over time but there are peaks and troughs which can be infuriating. It is the Brokers who stand out as being either particularly good or bad who get noticed by the business."*
- *"We are going to increase our volumes of OTC Derivatives next year and will watch to see which Brokers continue to give us the same level of service once our volumes start to grow."*
- *"I hope to see the problems associated with the transfer of processing to low cost locations start to get ironed out next year. It is still difficult to deal with people based in, say, Sydney since we only have a small window each day in which we can speak to them."*
- *"1 or 2 of the Brokers have really made an effort to treat us like valuable customers. They have organised group meetings to discuss industry initiatives and provided product training as part of their service. This is really appreciated."*

On the Z/Yen survey process, Client observations/quotes included:

- *"I agreed with many of the issues raised in last year's OTC Derivatives Survey and so I look forward to reading this year's report."*
- *"It was very much appreciated that Z/Yen made the effort to conduct the survey face to face. It helped us ensure that we answered the questions in a consistent manner."*
- *"A good selection of Brokers but with some notable exceptions. Makes us wonder why they did not want to participate."*
- *It would be really interesting to see which Brokers came top out of the combined results of all the Z/Yen surveys.*

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3. Executive Summary

3.1 Overall Summary of Rankings

The individual activity Rankings of each Broker were made by the Clients and are based on overall 2005 performance for each activity. The individual activity Rankings were then multiplied by the Activity Weightings (also Client-supplied) to give overall Interest Rate Derivatives, Credit Derivatives Equity Derivatives and Currency Derivatives Ranks.

Most Improved scores have been calculated by the overall difference between the 2004 total score and the 2005 total score.

Interest Rate Derivatives

Core Transaction Mgt.		Most Improved since 2004	
1	BNP Paribas	1	UBS
2	UBS	2	Lehman Brothers
3	Royal Bank of Scotland	3	Deutsche Bank

Credit Derivatives

Core Transaction Mgt.		Most Improved since 2004	
1	Morgan Stanley	1	UBS
2	UBS	2	Deutsche Bank
3	BNP Paribas	3	JP Morgan

Equity Derivatives

Core Transaction Mgt.		Most Improved since 2004	
1	BNP Paribas	1	JP Morgan
2	JP Morgan	2	ABN AMRO
3	Morgan Stanley	3	UBS

Currency Derivatives

Core Transaction Mgt.

1 UBS
2 BNP Paribas
3 Lehman Brothers

Client Management

1 JP Morgan
2 ABN AMRO
3 Morgan Stanley

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4. Broker Ranking - Summary of Top 3 Banks

Average No. Rankings Received	Interest Rate Derivatives Core Transaction Management	First	Second	Third
20.8	Confirmation Timing	BNP Paribas	Royal Bank of Scotland	UBS
20.5	Confirmation Accuracy	UBS	BNP Paribas	Royal Bank of Scotland
21.7	Settlement Performance	Royal Bank of Scotland	Deutsche Bank	UBS
18.6	Collateral Management	Barclays Capital	Lehman Brothers	BNP Paribas
15.4	Customer Valuations	Lehman Brothers	Morgan Stanley	BNP Paribas

Average No. Rankings Received	Credit Derivatives Core Transaction Management	First	Second	Third
20.0	Confirmation Timing	UBS	BNP Paribas	Royal Bank of Scotland
20.0	Confirmation Accuracy	Morgan Stanley	JP Morgan	BNP Paribas
20.6	Settlement Performance	Deutsche Bank	Royal Bank of Scotland	Morgan Stanley
18.8	Collateral Management	UBS	BNP Paribas	Barclays Capital
16.0	Customer Valuations	Barclays Capital	Morgan Stanley	BNP Paribas

Average No. Rankings Received	Equity Derivatives Core Transaction Management	First	Second	Third
16.1	Confirmation Timing	JP Morgan	BNP Paribas	CSFB
16.1	Confirmation Accuracy	JP Morgan	UBS	BNP Paribas
16.2	Settlement Performance	BNP Paribas	Morgan Stanley	Deutsche Bank
14.9	Collateral Management	BNP Paribas	CSFB	Morgan Stanley
12.3	Customer Valuations	BNP Paribas	JP Morgan	CSFB

Average No. Rankings Received	Currency Derivatives Core Transaction Management	First	Second	Third
13.0	Confirmation Timing	UBS	Lehman Brothers / RBS	Lehman Brothers / RBS
13.0	Confirmation Accuracy	UBS	Deutsche Bank	CSFB
12.3	Settlement Performance	Deutsche Bank	JP Morgan	Lehman Brothers
12.9	Collateral Management	BNP Paribas	ABN AMRO	Lehman Brothers
9.0	Customer Valuations	Lehman Brothers	BNP Paribas	Morgan Stanley / JP Morgan

Average No. Rankings Received	Equity Derivatives Client Management	First	Second	Third
25.3	Client Service (CS)	JP Morgan	ABN AMRO	Royal Bank of Scotland
21.6	Client Relationship Management (CRM)	ABN AMRO	JP Morgan	Deutsche Bank
21.8	Product Knowledge	Morgan Stanley	JP Morgan	ABN AMRO
14.8	Effectiveness of Client Meetings	JP Morgan	ABN AMRO	Morgan Stanley
9.3	Regular MIS	Morgan Stanley	ABN AMRO	BNP Paribas / Deutsche Bank

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5. List of Participating Clients

All Clients Interviewed

- Morley Fund Management
- CDC IXIS Asset Management
- Ferox Capital
- Credit Agricole & Credit Lyonnais Asset Management
- Aberdeen Asset Management
- UBS Asset Management
- ABN AMRO Asset Management
- AXA France
- BNP Paribas Asset Management
- DWS Investment GMBH
- Fortis Investments
- Oak Hill Contingent Capital Fund
- Norges Bank
- European Credit Management Limited
- Societe General Asset Management, Paris
- BlueCrest Capital Management
- KBC AIM
- Renault Finance
- CQS Management Ltd
- Brevan Howard Asset Management
- Cheynne Capital Management Limited
- Amarath
- Banco Bilbao Vizcaya Argentaria, Madrid
- Endeavour Capital Management
- ING Investment Management
- Tudor Investments UK
- Western Asset Management Company
- Caxton Capital Asset Management (Europe)
- Polygon Investment Partners
- Rubicon Investment Group
- Solent Capital Partners
- Blue Mountain Capital
- Efiposte
- AGF Asset Management
- Natexis Asset Management
- PIMCO / State Street Investment Management
- Caxton Associates
- Ericsson
- Sallie Mae (SLMA)
- Cheshire Building Society
- Black River
- Bluebay Asset Management
- Fischer Francis Trees & Watts
- Julius Baer Investments
- Tudor Europe
- Sinopia Asset Management
- JP Morgan
- BlackRock International Limited
- Goldman Sachs Asset Management International