



THOUGHT LEADERSHIP PAPER

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## VOLUME GROWTH IN THE FX MARKET Is Co-Operative Processing the Future?

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# Introduction

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As an asset class, foreign exchange is growing rapidly for both institutional and retail investors.

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The foreign exchange (FX) market continues to grow. In 2007, total global turnover increased from \$125 trillion to \$175 trillion. (1) In 2008, at many banks, volume has doubled in the first half of the year due to increased volatility and the entry of many investors into the FX market.

Acknowledgements

2. Euromoney FX Survey 2008

This volume growth continued unabated while financial markets were in turmoil over the credit crunch. Indeed the FX market had its busiest ever trading day on 16<sup>th</sup> August 2007 – typically a quiet month for financial markets.

This explosive growth has been driven by a number of factors. These include:

- Decreasing margins which have driven several banks to “go for flow”, i.e. increase volumes hugely to gain the same revenue as in previous years
- Algorithmic trading which has created large volumes of small value trades
- Prime brokerage which has grown rapidly over the past three years as hedge funds drive high volumes of business through their prime brokers
- Enablement of straight through processing (STP) by utilities such as CLS
- The growth of retail trading in the FX market, particularly from Asia.

The current and projected volume increases mean that banks’ operations departments (back offices) have become more and more stretched. An added complication is that FX is not such a simple business as securities trading as there are more structured products such as swaps, non-deliverable forwards (NDFs) and vanilla and complex options.

For the banks, high capacity, low latency solutions are required to keep up with volume demands. These are expensive and, with reduced margins, may be beyond the reach of Tier 2 and Tier 3 banks.

***In 2008, with investment dollars at a premium and with shrinking margins, are there other solutions to these capacity and cost issues?***

***In this white paper, we will explore the current issues in operations processing and look towards some state-of-the-art solutions which will fundamentally change the way that foreign exchange products are processed.***

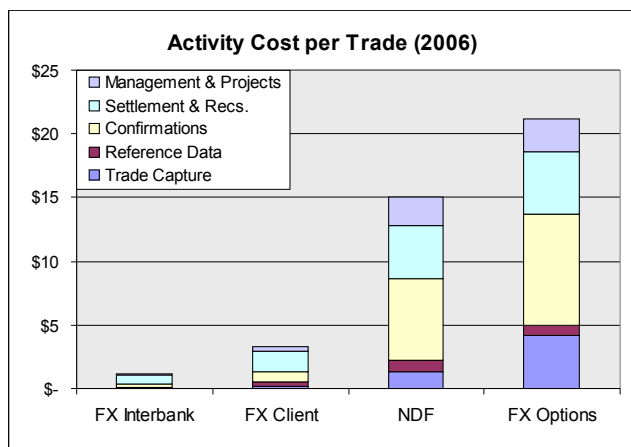
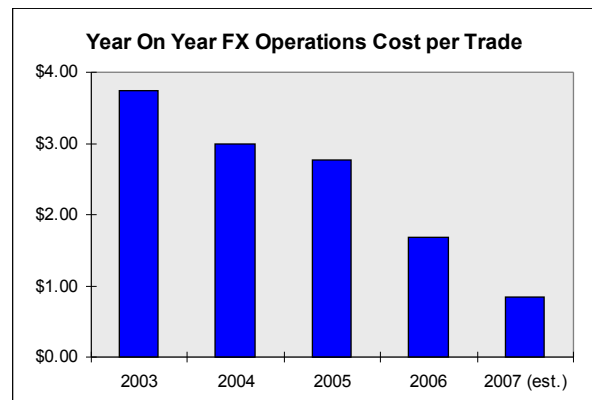
# Current Issues: Processing Costs

As volumes continue to grow, the key goals are capacity and STP. Confirmation processing is an area of weakness where costs remain high.

## OPERATIONS COSTS

At the largest banks, FX trade volume has increased significantly in the last three years, with daily trade volumes up to 400,000 trades per day. Additionally, this volume now comes from a variety of sources, e.g., the banks' own proprietary and client businesses, the banks' own currency portals, industry portals such as Currenex or FXALL and also from aggregators who bring together retail trades.

This increased trade volume has resulted in a significantly reduced average operations cost per trade as can be seen from the graph opposite (source Z/Yen Cost per Trade Surveys 2003 - 2007).



## HIGH CONFIRMATION COSTS

There is also a huge difference in the cost of processing the different FX products (see opposite).

While the banks have invested in straight through processing, it is clear that there are still differing costs between the STP interbank business and higher cost client business and more structured trades such as NDFs and FX options.

In particular, it is trade confirmation costs that are expensive (43% of the operations cost of a NDF and 41% of an FX option).

## VOLATILITY AND CAPACITY

Like other traded products, FX volumes can be very volatile. Between 16<sup>th</sup> and 17<sup>th</sup> August 2007, many banks processed more trades than the average for the whole of August in 2006. These high volume trading days and later spikes in volume cause huge problems for the banks, their clients and supporting utilities such as CLS. The volumes in August 2007 were processed successfully because the banks and CLS worked together to relax deadlines and to keep the processing window open over the weekend.

However, as the market grows for more manually processed products such as NDFs and FX options, there is a risk of a huge confirmation backlog as seen in the credit derivatives market in 2006.

# Current Issues: Technology

With reduced margins, few banks have deep pockets for investment in technology. This particularly affects smaller banks.

## TECHNOLOGY COSTS AND SPENDING

The overall cost of running a technology platform is relatively constant across banks. However, Tier 2 and 3 banks suffer disproportionately high IT costs when viewed on a “per trade basis” (see graph opposite – source Z/Yen Cost per Trade Survey 2007).

This proves that volume helps the larger banks to be competitive in a low margin business.

Additionally, the smaller banks need to spend the same in interfacing to currency networks and also attract higher CLS charges.

However, in November 2007, UBS analysts said banks were reviewing all spending programmes closely and forecasted a 20% decline in treasury and capital markets licence sales in the first half of 2008.

## INVESTMENT IN CONTROL

Although STP is a key driver of IT development, there is also greater emphasis in 2008 on control based systems, in particular, following the Société Générale problems at the turn of the year. Audit groups are having greater say in the design of systems with traditional concepts such as “maker/checker” sign-offs gaining wider recognition.

## LINKS WITH CREDIT SYSTEMS

Another development goal of many banks is real-time credit monitoring. Even though many customers such as hedge funds are trading intraday and settling positions at the end of day, huge intraday exposures are building up which need to be monitored in real-time.

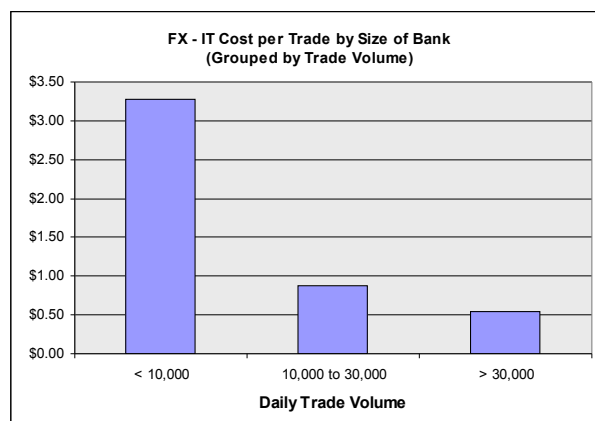
## OPERATIONAL AND SYSTEMATIC RISK

Although the banks (and utilities such as CLS) survived last August’s record volumes, it was a close thing. When processes get stretched, operational risk grows and the markets’ fear of a systematic meltdown are real with so much concentration of volume.

## HOW CAN BANKS REMAIN COMPETITIVE?

***To remain competitive, banks will need to invest in technology but, with decreasing margins, can the less profitable banks afford to update their applications to provide state-of-the-art functionality?***

***Is the industry wasting its money in maintaining individual systems at individual banks? Would a co-operative or utility solution be more effective?***



# The Developing Utility Market

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Utilities have transformed operational processing for both securities and OTC derivatives. Can the same models be used in foreign exchange?

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Ten years ago, both the equities and the OTC derivatives processing market were inefficient and volumes were constrained by manual processes. In particular, trades were matched and settled bilaterally with little in the way of standardisation. In order to understand how utilities revolutionised the post-trade market and contributed to volume growth, it is useful to look at some specific products:

## TRADE MATCHING

**Omgeo's OASYS** (Oasys Global for Cross-border) processes high volumes of securities electronic trade confirmation (ETC) volumes while CTM provides exception-only processing, real-time settlement instruction enrichment and automated messaging to custodians and agents.

In the USA, the vast majority of both investment managers and broker/dealers use OASYS. This has contributed to a huge rise in volume and a resulting fall in the cost per trade.

**DTCC & SwapsWire** have provided automated confirmation matching for credit and interest rate derivatives. This has enabled huge volume growth in the OTC market.

## CLEARING & SETTLEMENT

**CLS Bank** provides a real-time system that enables simultaneous settlement of payments instructions arising from FX trades globally, irrespective of time zones. Initially CLS was set up to minimise Herstatt (systematic) risk but has evolved into a key stage in the FX netting & settlement process.

Use of CLS by the major banks has contributed significantly to increased FX & Credit Derivative volumes.

**RepoClear** was initiated in 1999 by the London Clearing House (now LCH.Clearnet). It was the first multi-market centralised clearing and netting facility for the European government repo and cash bond market. RepoClear helped banks maintain and, indeed, increase their repo activities.

**DTCC DerivSERV** also provides cash flow matching and netting for OTC Derivative trades.

## A CENTRAL COUNTERPARTY FOR FX?

One area where FX is different to other products is in the lack of an exchange or a central counterparty. But will this really work? One senior operations manager commented, *"It would be like turkeys voting for Christmas – we would lose our competitiveness"*.

But others believe that it is a way forward. Another senior operations manager felt that a central clearing house would provide greater efficiencies but recognised that there was limited appetite from banks which would lose their competitive edge.

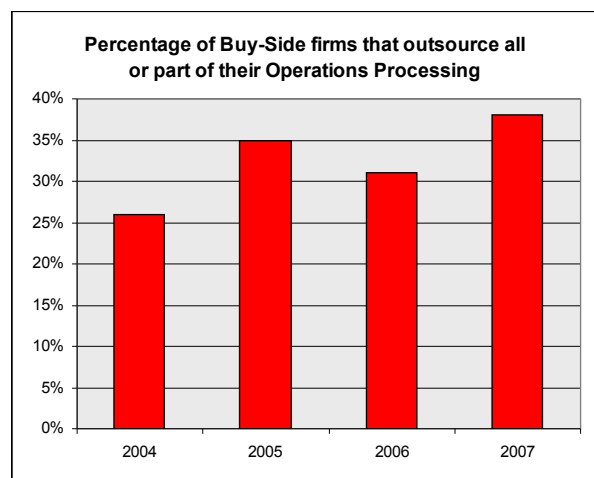
## CAN THE SAME MODELS BE USED FOR FX?

**CLS has been a great success in bringing STP to foreign exchange processing. It is unlikely however, that another shared-ownership utility like DTCC will evolve in the FX space as vendors are typically driving STP and connectivity. What other opportunities are there for banks to reduce their costs?**

# The Growth of Outsourcing and Offshoring

Outsourcing has gained a substantial foothold amongst buy-side firms. But on the sell-side, the focus has been on offshoring rather than outsourcing.

The use of outsourcing services and shared utilities in the financial services industry is nothing new. New York banks outsourced their security guards to Pinkertons Detective Agency in the 1910s. In the payments and securities arena, shared services such as SWIFT, Euroclear and CHAPS have been around for a number of years. In fact, huge businesses have grown in the bank-to-bank market with the emergence of global custodians and cash clearers.



On the buy-side, outsourcing has grown significantly over the past five years. Part of this has been driven by the custody banks such as State Street and Bank of New York building up insourcing teams from investment managers' own staff but there has also been a rise in dedicated outsourcing firms such as GlobeOp which have grown a sizeable business from processing and valuing OTC Derivatives for hedge funds.

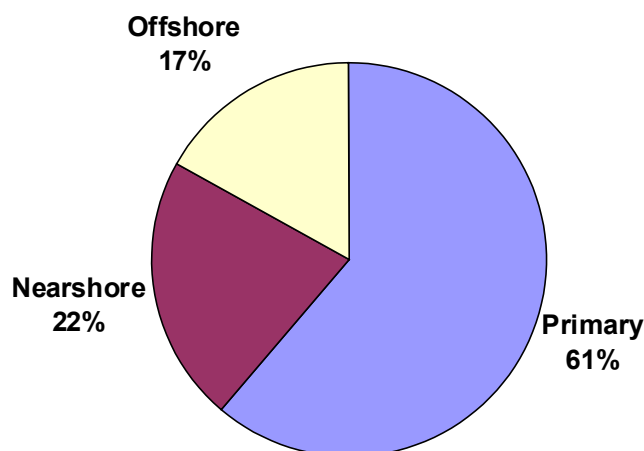
The graph opposite shows the rising percentage of buy-side firms outsourcing. In 2007, nearly 40% of firms outsource some or part of their operations (source Z/Yen Operational Performance of Brokers Survey 2007).

But on the sell-side, banks have largely ignored the outsourcing trend and chosen instead to reduce costs by nearshoring or offshoring operations functions.

The graph opposite shows that overall by the end of 2007, 39% of foreign exchange processing staff were located in a different city/country from the traders. However, operational efficiency analysis has also shown that for some banks, there has been a fall in productivity when moving processing to offshore locations. This has not been the case with nearshore locations, e.g., Glasgow and Bournemouth in the UK, Concord CA in the US and Sydney. In some cases, banks which had moved processes to India have now moved them back.

*The number of announcements on offshoring has slowed in the last 12 months. With reduced potential for further cost-savings by offshoring, will banks now look more to outsourcing for cost reduction?*

Proportion of FX Back-Office Staff by Location

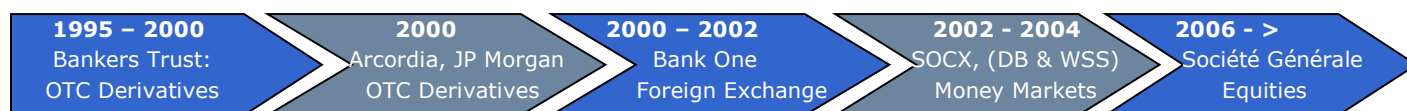


# Previous Outsourcing Ventures

Outsourcing has gained a substantial foothold amongst buy-side firms. But most ventures on the sell-side have not succeeded.

There have been several attempts to build outsourcing businesses for the sell-side but until now, none of these has been hugely successful. The timeline below shows some of the major ventures in this market:

## Outsourcing Timeline



Previous ventures include:

- Bankers Trust provided OTC Derivatives outsourcing for Abbey National Financial Products and Daiwa Derivative Strategies between 1995 and 2000. Although the venture was successful, it was viewed as a one-off and funding was never available to develop the technology platform to be multi-client
- JP Morgan set up Arcordia to insource OTC Derivatives processing in 2000 but closed it to concentrate on the merger with Chase Manhattan
- Bank One set up a FX Outsourcing business in 2000 to 2002 and attracted five Tier 2/3 banks. Again, this was a successful business but it was not a key focus for the bank. The management team tried to gain external funding to grow the business but in the wake of 9/11, priorities were elsewhere
- Deutsche Bank and Wall Street Systems set up SOCX in 2002. This was a technology rich venture which was initially successful in bringing straight through processing to money markets processing. However, SOCX could not attract additional clients and in the end, closed down
- Société Générale Security Services, since 2006, has been running a successful equities processing service for smaller broker/dealers.

There were three key reasons for the lack of real success in these ventures:

- The first was proprietariness: bank senior management did not want to drive forward businesses that would help competitors and potential customers were worried about position and customer information being disclosed (even though Chinese Walls were in place)
- The second was cost: the economies of scale were simply not available to the outsourcers to bring the necessary savings
- The third was timing: the market wasn't ready for the standards that outsourcing needs.

However, Leigh Meyer, Global Head of FX Operations at Citi, believes that is about to change. He says, "At face value, the concept of removing operational obligations to become more cost efficient is becoming increasingly realistic - more people are looking at this at a strategic level."

**With high volumes and pressures on cost, it is apparent that many banks would consider outsourcing now if the right solution is available. What is new in the market? and what outsourcing opportunities are available for foreign exchange?**

# What's New in the Market - 1

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The recent (and projected) rise in FX volume could not have been achieved without a jigsaw of vendors who have combined to provide automation at the front-end of the process.

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## CONNECTIVITY AGENTS

Connectivity agents such as Logicscope have been huge drivers of the market. Logicscope provides connectivity between banks and their clients' back-offices. It creates efficiency as tickets do not need to be re-entered manually and thus increases trader productivity and reduces operational risk.

## BANK PORTALS

The main bank portals are Deutsche Autobahn (DB), CitiFX (Citibank), BARX (Barclays), UBS FX2B (UBS), Click & Trade (Dresdner), Passport (Morgan Stanley) together with offerings from Credit Suisse, Lehman Brothers and Goldman Sachs. Although these were originally set up with the objective of retaining banks' volume from traditional sources, over the last two years they have started to attract significant trading revenue from retail investors.

## CURRENCY NETWORKS

Currenex is one of the deepest liquidity pools in FX, connecting more than 70 global banks in an electronic trading network and processing approx 50,000 trades a day. Currenex also supplies its technology as a white-labeled service. Although Currenex provides a single STP interface to its clients, one of the biggest issues that vendors like Currenex face is integration within banks' back offices. This is both a resource and an old technology issue, as banks do not have the necessary expertise to upgrade old processing systems to interface to trading networks and thus, there are breaks in STP.

FXMarketSpace is a collaborative effort between CME and Reuters and is the first centrally-cleared, global FX platform for the over the counter (OTC) market.

## POST TRADE SERVICE PROVIDERS

Providers such as Traiana (now part of ICAP) have delivered a suite of services to enable efficient post-trade processing and this has supported a huge increase in volume by streamlining trades from hedge funds and real-money managers. As the market develops, they are working towards providing greater efficiency in products like NDFs which are currently processed semi-manually. Another area of growth will be FX Options, particularly when there is more liquidity in the market and they can be electronically traded.

**All of these have helped business expansion but have also contributed to the “maze of plumbing” which impacts the back office. Jeremy Taylor, London Regional Head of FX & Money Markets Operations at UBS, commented, “It’s the number of interfaces which can kill you – only one needs to be a weak link”.**

**So what new solutions are available to help with the ever-increasing volume of trades?**

# What's New in the Market - 2

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**The huge increase in trade volume has led to vendors announcing new products to cater for both existing and new clients**

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## FXSETTLE

FXSettle has just been launched by FXMarketSpace and the CME. FXSettle routes trades dealt on FXMarketSpace directly to the customer's bank or agent for settlement. FXSettle is backed by CME Clearing, which guarantees settlement (like using a central counterparty).

This service is currently only available to FXMarketSpace customers, and two banks are currently live with one onboarding.

## ELECTRONIC SETTLEMENT NETWORK (ESN)

The Electronic Settlement Network (ESN) is a hosted post trade service powered by technology from Wall Street Systems. It provides processing capacity to clients in different ways:

- For Tier 1 banks, ESN provides a trade capacity "insurance policy". During periods of high volume, banks can switch a percentage of their post-trade activity to ESN to reduce queues in their own infrastructure;
- For Tier 2 and Tier 3 banks who need to lower their cost per trade, ESN is available as a cost effective post trade solution, with minimal investment of time, resource and cost. This enables smaller banks to reduce processing costs as they no longer need to invest in and maintain their own applications and associated infrastructure. Alternatively, ESN can be used as a short-term "bridge" until an in-house system can be implemented;
- For currency network participants, e.g., hedge funds and day-traders, ESN provides a hosted post trade processing service which can remove the need for using prime brokers to perform operational functions;
- Finally, for prime brokers, who have unpredictable volumes of prime broker trades which need to be processed through the bank's own infrastructure, ESN provides an outsourcing facility for settlement.

***Both these ventures are attracting major interest and need consideration as an alternative to the huge technology spend that will be required to keep up with volume growth.***

***The market is demanding more efficiency. Is this finally the time when outsourcing becomes the model of choice in FX processing?***

# Time for a Change

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**The current FX processing mode is obsolete. It was built for a time when most trades were done by voice. A quantum leap forward is needed but can this be achieved by the banks alone?**

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Jesse Drennan, Product Manager for Traiana raised the following question, *“The market has historically asked itself ‘how do we scale what we’re already doing post-trade?’ With the current and projected increase in ticket volumes it would seem prudent to start asking why are we processing in this way and is there is a better way?”*

He is right: there is a better way, and a timely one. Nick Dyne from Logicscope says, *“In the long term, banks are going to stop processing FX trades and, instead, there will be a few huge silos run by service providers processing tickets. The banks’ systems will just be for consolidation and reporting.”*

The steps towards this new infrastructure include:

1. Co-operative processing. At the front-end, the banks are still going to compete, but at the back-end, there are huge economies of scale in co-operative processing.
2. Volume on demand, like with electricity, matching and settlement of FX trades needs to become such a commodity that it can be turned on and off like a tap.
3. Matching and confirmation at time of execution. As most volume is now electronically traded, there is no need for a separate matching or confirmation process. It is the confirmation process that causes the most delays in the customer market.
4. A better central source for settlement instructions.
5. More comprehensive aggregation before settlement. This can be through the existing aggregators, at the banks or at CLS. The key however is to enable high volume trading in all currencies and for non-vanilla products such as NDFs and FX options.

Tony White, Managing Director of Product and Research & Development at Wall Street Systems believes that ESN will power this new post-trade environment. Specifically, he says, *“ESN will give ‘trade capacity insurance’ for Tier 1 banks, lower the cost per trade for Tier 2 and 3 banks, allow prime brokers to increase their trade processing capacity ‘on demand’ and provide ECN customers with a full service trade execution and processing platform.”*

**Co-operative solutions rather than bank-only are the future for FX processing and there are a number of market participants and vendors who support this new direction. The time is right to take advantage of potential growth and build a co-operative processing environment for the whole FX market to cope with the volumes ahead. This will allow FX to grow into a pre-eminent asset class for the retail and institutional markets.**



## JEREMY SMITH

Jeremy Smith has been Head of Z/Yen Financial Services Benchmarking (now part of McLagan) since 2000 following 12 years with Bankers Trust Company and Deutsche Bank. Jeremy's experience has covered private banking, OTC derivatives and securities processing from both operations and technology perspectives. This included the set-up and management of the industry's first OTC derivatives outsourcing business in 1995.

With Z/Yen, Jeremy has established Z/Yen's range of market intelligence surveys which provide both benchmarking and client feedback on operations and technology. These surveys have included: eight years of annual cost per trade benchmarking of FX, securities and derivative products in which more than 30 major banks have participated; six years of operations performance reviews, where more than 300 investment managers were interviewed annually as to their needs and their rating of the providing broker/dealers; and a number of specific surveys and consultancy assignments to the financial services industry.

Jeremy has a BSc. in Statistics from Bath University.

For further information, please contact Jeremy on

Tel: +44 20 7680 3071

Email: [jeremy.smith@mclagan.com](mailto:jeremy.smith@mclagan.com)

### CHICAGO

Aon Center  
200 East Randolph Street,  
Tenth Floor  
Chicago, IL 60601-6421  
Tel: 312.381.9700  
Fax: 312.381.9920

### DUBAI

Dubai International Finance Centre  
Level 12, The Gate, Office Number 16  
P.O. Box 506706  
Dubai  
United Arab Emirates  
Tel: 971.4365.0196  
Fax: 971.4361.1999

### HONG KONG

Unit 1402, Euro Trade Centre  
21-23 Des Voeux Road Central  
Hong Kong  
Tel: 852.2840.0911  
Fax: 852.2840.0966

### LONDON

Lloyds Chambers, 5th Floor  
1 Portsoken Street  
London E1 8BT  
England  
Tel: 44.207.680.7400  
Fax: 44.207.481.3210

### NEW YORK

199 Water Street 12th Floor  
New York, NY 10038  
Tel: 212.441.2000  
Fax: 212.441.1967

### STAMFORD

1600 Summer Street  
Suite 601  
Stamford, CT 06905  
Tel: 203.359.2878  
Fax: 203.323.9851

### TOKYO

Akasaka Kato Building  
2nd Floor  
22-15, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
Japan  
Tel: 813.5549.1850  
Fax: 813.5549.1857

[www.mclagan.com](http://www.mclagan.com)

## MCLAGAN

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### OUR BELIEF

Accurate market data is a requirement for aligning resources with opportunities. Market data identifies market opportunities, business improvement opportunities and prices for talent and products.

### OUR GOAL

McLagan's goal is to provide a complete and accurate set of data coupled with insights to help management interpret market trends and apply them to improve business results.

### OUR BUSINESS MODEL

McLagan's business model is based on creating and expanding long-term partnerships with our clients. As evidence of this, many of our key client relationships extend back to our firm's inception, more than 40 years ago.