



# Post-Trade Technology: Reactive or Progressive?



## Introduction

Post-trade technology enables brokers and investors to confirm and report trades, and is essential to the effective operation of these firms. However, the technology at the heart of many of these systems was designed for a simpler trading environment. As the environment has evolved, for example through new regulations and the growth of alternative asset classes, firms have been forced to adapt their systems. This has often involved piecemeal upgrades, building on previous amendments and involving inefficient workarounds.

With both their systems and the trading environment becoming more complex, the potential problems for firms increase. These include the possibility of failed trades, lost business, ineffective risk management and the inability to ensure regulatory and reporting compliance. These are significant risks, which no firm can afford to ignore.

This paper considers how the trading environment has changed and how it continues to evolve, and looks at the characteristics that post-trade systems should have, so they can anticipate developments rather than merely react to them.



## The rise of regulation

Regulation has always been a fundamental part of financial markets. In recent years, however, the volume of regulation has increased significantly, a trend which was exacerbated by the financial crisis and the consequent focus on risk.

In Europe, for example, we have seen the introduction of MiFID and further iterations of UCITS. In the United States, the Dodd-Frank Act aims to promote stability by improving accountability and transparency in the financial system. Other new rules, such as FIN48 and the HIRE Act, potentially affect the taxation of trading activity, among other problems.

Regulations can have a positive effect. For example, UCITS allows European-domiciled funds to trade freely across Europe. According to Eurekahedge, the number of UCITS III hedge funds has shown "exceptional growth", while the proportion of European hedge funds domiciled in the Cayman Islands has fallen from more than 60% to less than 40%, as funds look to take advantage of UCITS.

The pace of regulatory change shows no sign of slowing, with Europe preparing for MiFID 2 and the European Market Infrastructure Regulation. Further regulations are also being considered. One possibility is that buy-side firms will have to report their transactions. In principle, this is already a requirement within the MiFID area but in practice it is mainly done by brokers on investors' behalf. In the US, firms that trade more than a set amount will have to do their own reporting, irrespective of whether their brokers also report.

As regulations are introduced in one part of the world influence the rules elsewhere, convergence is becoming inevitable. This has already been seen in Europe and the US, and the question is whether Asia will follow. With Asia leading growth in 2011 and global interest rates remaining low, the region is becoming more attractive to investors, especially those seeking alternative investments. Investors allocated more than \$3.6bn to Asian hedge funds in the first quarter of 2011, the largest quarterly inflow to these funds since capital flows were first tracked. The number of hedge funds investing purely in Asia has also increased to 1055, the highest figure since 2008. This growth can create new regulatory burdens for Asian fund managers. The rising proportion of assets coming from the US means that many managers will be required to register with the SEC, as a result of Dodd-Frank. The European Union's Alternative Investment Fund Manager Directive may also have implications for funds that rely on European assets.

The one certainty is that firms everywhere can expect more regulation to come over the horizon. An effective post-trade system should be easily adaptable, so it can take these developments in its stride. If new regulations require a trade to be reported and cleared, for example, then a system that is currently used to match a trade would also benefit from having the flexibility to report it and send it to a clearing house.



## The growth of additional asset classes

Many post-trade systems date from a time when firms predominantly traded cash equities and fixed-income securities. As additional asset classes such as swaps, futures and options have become more prevalent, firms have been forced to shoehorn these assets into systems that were not designed to handle them. The development of these asset classes is set to continue, as traders look for competitive advantage by creating new structures, resulting in a growing number of different instruments for post-trade systems to cope with.

The graph below shows one example of how important alternative asset classes have become. Exchange traded fund assets in the US have grown from US\$65bn in 2000 to nearly US\$1.1tn in early 2011, an annual compound growth rate of more than 30%.

Some asset classes also bring other complications. Multi-participant trades are also more intricate because they involve three or more counterparties – for example a prime broker, an executing broker and a buy-side firm. These firms may all be working in slightly different ways, with variations in the terminology they use and their internal workflows.

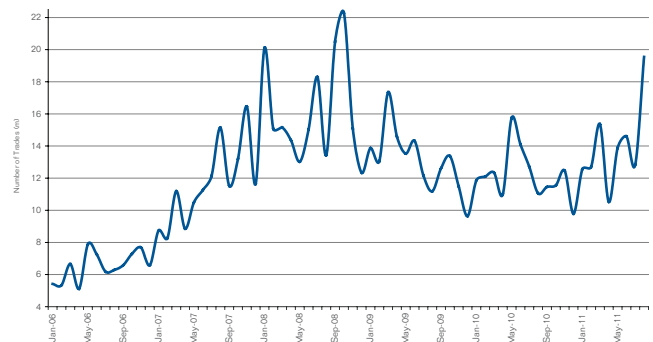
Amending existing systems to add the necessary fields often requires time-consuming changes to code and a new release of the software. Firms therefore need a post-trade system that can adapt to different asset classes, with a scalable matching engine that can keep pace with developments and which does not involve complex projects and new code to add fields.

## Scalability due to increasing volumes

Strong growth in trading volumes has coincided with the increase in asset classes in recent years, with fewer firms making more trades but using fewer counterparties. This volume growth is illustrated by the following two graphs.

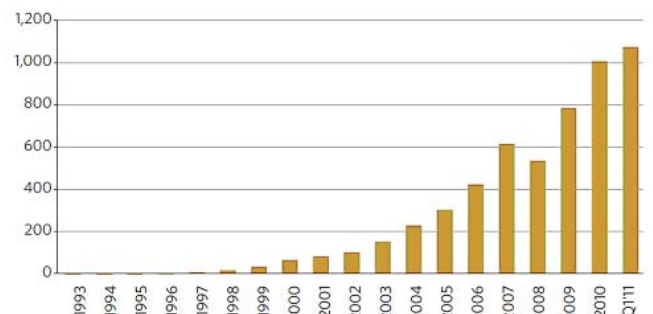
The first graph shows a four-fold increase over the last five years in the traditional asset class of equities on the London Stock Exchange's Order Book. The second demonstrates the continual demand for alternative asset classes and their potential growth. Exchange traded fund assets in the US have risen from US\$65bn in 2000 to nearly US\$1.1tn in early 2011, an annual compound growth rate of more than 30%.

Equity Order Book London



Source: London Stock Exchange Group

ETF Assets 1993 - Q1 2011 (\$ Billion)



Source: Strategic Insight Simfund MF

Increased volumes across asset classes, in ever-changing and potentially volatile markets, are putting a strain on post-trade systems. Adaptable and scalable systems will become more and more valuable.



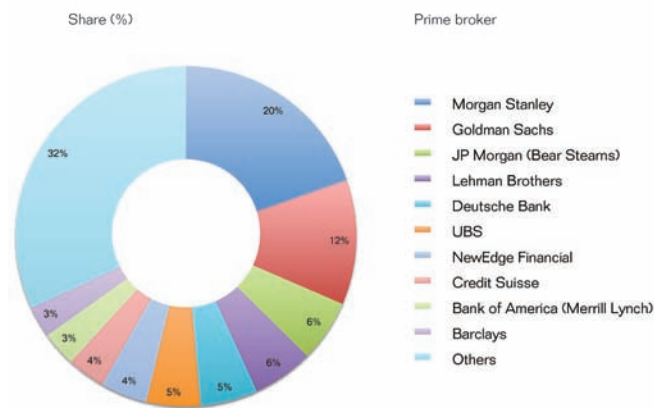
## Simplifying Integration

The lack of common standards between firms' systems means that integrating them takes longer and is more difficult and expensive than it should be. To connect to another firm's platform often requires software to act as the gateway and middleware to transform messages to the type the other platform requires.

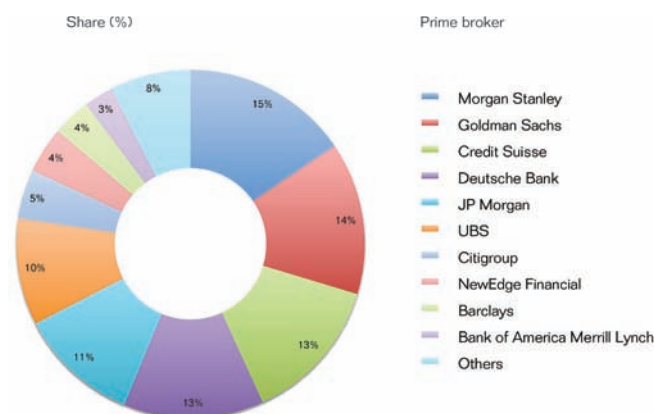
This issue became more pronounced after Lehman Brothers' failure, with counterparty risk high on the minds of fund managers and their investors. Increasing the number of prime brokers was a logical step and the creditworthiness and capital strength of institutions are key differentiators.

### European market share of prime brokers by number of funds

2008



2011



Source: Eurekahedge

The chart shows this effect in Europe, with notable changes in prime brokers' market shares since 2008. The market share of the 'Others' category has fallen by three quarters, as funds have moved their business to the larger prime brokers. The shares of the top five brokers are also more evenly distributed, as hedge funds have diversified their assets among two or more prime brokers. The ability of the universal banks to offer other services, such as custody and fund administration, has also increased their attractiveness to the hedge fund community.

The issue from a post-trade systems perspective is that an investor with several prime brokers may have to communicate differently with each one, making it a real challenge for systems to cope. Firms would therefore benefit from using common standards as much as possible. A modern post-trade system should accept open messaging standards such as SWIFT and FIX, and allow users to upload multiple file formats, normalising the data so they can be matched. Firms can then work in the way that suits them, irrespective of the way their counterparties operate.

A post-trade system should also enable users to interact with it in the most efficient and effective way, catering for each market constituent. A large executing broker or algorithmic trader may process thousands of trades each day and will want the fastest technology and best information through real-time messaging and straight-through processing. A small hedge fund, in contrast, may want to keep its technology investment to a minimum. With only a small number of daily trades, its needs would be met by a web-based system that allowed manual uploads. Post-trade systems need to cater for both ends of this spectrum.



## Neutrality preferred

To appeal to the widest range of potential users, a post-trade system needs to build a community with minimal barriers to joining. Neutrality is integral to its core logic in both ownership and participants, meaning that users are unconstrained in their choice of counterparties. For example, a hedge fund that wants multiple prime brokers should have the ability to connect to all of them and not be restricted to one. Similarly, as regulations change and more types of trade are required to be cleared or reported, users will prefer systems that are interoperable with all clearing and reporting houses.

The same rationale needs to be applied to those who trade globally. Firms who trade in more than one region face a further layer of complexity, with more nuances in the way that trades are matched and differences in regulation. A well-designed and flexible system should meet all of their global post-trading requirements, by adapting quickly and easily to the variations in each market. This allows international firms to use a single system, simplifying their operations and controlling their costs



## Conclusion

Technology, operations, regulation and cost are driving brokers and investors to need a more flexible post-trade solution, one that is asset class and message agnostic, able to cope with new regulations and the continued evolution of asset classes, and which allows them to effectively monitor and manage their risk. Such a system will minimise their time to market, by being quick to integrate with other systems and adjust to changes, and will have minimal barriers to entry. Eliminating the need to patch legacy systems and create workarounds is key to improving market efficiency and reducing costs.

High quality post-trade systems will create a more level playing field, raising the benchmark and bringing those below the industry average to a higher standard. Competition between vendors will drive development and ensure post-trade systems keep up with users' ever changing needs.





## London Stock Exchange Group and UnaVista

London Stock Exchange Group sits at the heart of the world's financial community. The Exchange is a trusted, neutral and regulated company that is uniquely positioned to provide solutions that address industry-wide challenges.

UnaVista is the London Stock Exchange's neutral and hosted platform for post-trade matching, netting, reconciliation, regulatory reporting and reference data.

It is a technologically advanced service that offers clients a range of business solutions and enables them to connect to all of their global counterparties, including hundreds of brokers, buy-side clients, regulators, CCPs and market infrastructure providers. UnaVista is asset-class agnostic and used by more than 7,000 users across 2,000 companies worldwide, who connect via SWIFT, FIX, browser, email or file transfer.

UnaVista's business solutions include transaction reporting, confirmations portal, swaps portal, reconciliations and reference data services.