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## Tighter integration

The key to the most successful FX derivative businesses





# Tighter integration – the key to the most successful FX derivative businesses

*Today's FX derivatives world is going through significant change. Greater focus is now being put on how to increase efficiency in all areas, new products, technology solutions, risk management and day-to-day operations. This article looks into these issues through the eyes of three key vendors in this market*

## **What are the main challenges at the moment in foreign exchange (FX) derivatives?**

**GFI:** Speaking from a price discovery, trade execution and middle-office risk management perspective – which are the business areas we serve at GFI with our brokerage and technology (FENICS®) business – we see the challenges as: (i) keeping abreast of the continued technical complexity of the derivatives market versus the cash market; (ii) streamlining the operational aspect of the business to enable 'cost-of-trade' reduction where possible; and (iii) innovation – commoditisation of certain products means margins are eroded, thus banks need to continually innovate through new products, particularly exotics and more structured products, for trading and new technology solutions for risk management purposes.

**Wall Street Systems (Wallstreet):** Significant industry-wide issues include: a) instrument complexity, particularly cross-asset classes; b) huge growth in volumes and effectively dealing with these instruments; c) client pressure for shorter time to market for new instruments; d) faster and more flexible pricing and risk management tools; and e) regulatory pressure regarding instrument use, reporting, and compliance.

Banks' clients are continually demanding real-time risk management, profit and loss (P&L) reporting and straight-through processing to satisfy their own business needs and also to satisfy regulators and compliance officers. When it comes to post-trade processing, the buy side also is looking for real-time facilities that aggregate all activity across all execution venues. Also, they are looking for post-trade services that allow them to approve, settle and net transactions electronically and in real-time.

**NumeriX:** The main challenge our clients are facing is structuring and modelling progressively more sophisticated FX instruments. For example, our clients are seeking FX options products that provide pure exposure to volatility. Volatility is widely considered to be an asset or instrument class of its own and is viewed as a means

to generate alpha. These NumeriX customers are seeking clean exposure to volatility through a variety of instruments, such as volatility, variance and correlation swaps. On the modelling frontier, NumeriX has added support for hybrid EQ/FX models and we have improved our long-dated FX smile models. Furthermore, we have provided stochastic skew models for more accurate pricing of FX derivatives such as lookbacks, Asians, barriers and Europeans.

## **What new pressures are traders, risk managers and technologists facing as a result?**

**GFI:** Traders are faced with not only finding new products to trade that provide higher margins, but are also faced with the pressure of quicker distribution and more accurate production of 'tradeable' prices, both internally to sales groups and externally to clients as more and more clients look to trade FX derivatives more aggressively. Risk managers are faced with the management of these new products and more accurate and timely P&L analysis and risk reporting. Technologists face the pressure of providing both the trading side and the risk side of the business with the solutions to help them achieve their objectives. Technology efficiency is extremely important. Systems in all areas need to communicate and be integrated as tightly as possible to minimise risk and maximise speed and efficiency.

**Wallstreet:** Traders and risk managers are under pressure not only to respond quickly to customer demand for new products but also to ensure that risk is decomposed accurately and quickly. Operations are under pressure to process new instruments and increased volumes in a timely and cost-effective manner. Technologists are under pressure to provide analytical and processing tools to efficiently handle all of these demands in a controlled, auditable environment.

**NumeriX:** Traders need a way to rapidly derive competitive prices and sensitivities for 'freshly minted' complex FX structures. Our clients count on their risk managers to incorporate these new products into the portfolio and to derive consistent and supportable valuations, day in and day out. Risk managers count on IT to provide robust, market-vetted and well-documented pricing analytics that can easily be integrated into their trading and risk management systems. NumeriX is providing the advanced algorithms and quantitative support required to trade these complex structures.

## **How is this affecting technology budgets and where are they being directed?**

**GFI:** We definitely see an increase in spending towards technology in the area of FX derivatives. As discussed above, increased capabilities on the client side and increased competition across the banking community has forced everyone across the spectrum to

review their technological capabilities. In the inter-dealer brokerage community in which GFI is a significant player, we have been required to meet this demand also and have recently launched our electronic execution platform GFI ForexMatch™. Through our FENICS® business, we are assisting banks in many areas, but primarily in price distribution and STP. For a few years now, banks in particular have talked about increasing their technology capability in FX derivatives. At FENICS®, we believe the talk has stopped as we are seeing actions being taken.

**Wallstreet:** Technology budgets are now looking more at trade processing, whereas previously the emphasis was on electronic trading and structured products. This is across all asset classes, including FX derivatives.

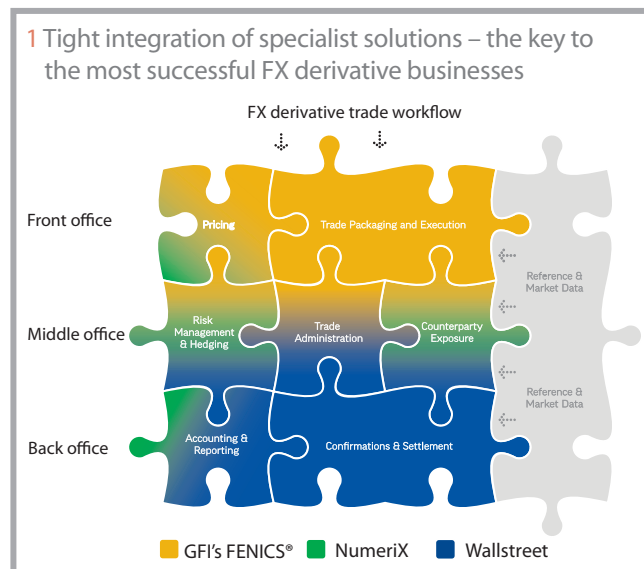
Besides pricing and market risk management concerns, banks are spending to minimise operational risk by automating confirmations, settlements and accounting. As banks structure more complex instruments for their clients, an open yet controlled and auditable infrastructure to process these trades is crucial. Otherwise, things such as multiple entry, local spreadsheets, manual generation of confirmations and manual entry of account adjustments proliferate – all of which increase the chances of things going wrong.

**NumeriX:** Further to Wallstreet's point, as exotic deals grow in volume and decrease in margins, our clients are calling on us to improve the performance of their trading and risk management platforms, while maintaining model consistency from front-through back-office processes. Traders and quants are pressured to maintain the P&L and augment yields. Along with their IT teams, they look to their advanced technology partners to continue to provide a competitive edge. Our quants/financial engineers and developers are delivering consistent, cost-effective analytic technology solutions at every phase of the FX deal life cycle.

#### What does a solution like this look like, what roles do FENICS®, Wallstreet and NumeriX play and where is the value provided?

There is definitely the concept of the ideal world and then there is reality. In an ideal world there would be the perfect end-to-end solution that we could go to, which would be provided by the ideal vendor and would answer all of our clients' prayers. However, we all know that this does not exist, so what everyone strives for is to find the different pieces of the puzzle (see figure 1) that fit best together and provide the best support for the business. At GFI (FENICS®), Wallstreet and NumeriX, we have recognised this and have been working together closely to create an environment, through collaboration, that helps our clients meet their objectives. This has worked exceptionally well due to the synergies that exist within our businesses, the fact that our respective products complement each other and that, in many cases, we share the same clients. To put this into more context, and to focus in on the particular demands discussed in this article:

- Price discovery, distribution and execution – GFI with GFI ForexMatch™ and FENICS® in conjunction with NumeriX combine to provide pricing and execution solutions for complex FX derivatives. Both firms have worked collaboratively for some time now, thus enhancing the pricing and risk management facilities



provided to the trader via FENICS® with the financial computation engine to assist with the rapid structuring and pricing of complex deals provided by NumeriX. FENICS®, through its new FENICS® Enterprise Solution and FENICS® DealFX products, enables the distribution of the prices generated to be deployed rapidly to sales teams and, if required, directly to the client base.

- Trade capture, risk management and reporting and processing of FX derivatives post-trade – FENICS®, as the operation environment in the middle office, has developed a comprehensive integration application programming interface with Wallstreet. This is extremely important as the trade detail and management requirement passes from the front/middle office into the back office. Wallstreet provides the infrastructure environment for high-volume and real-time trade processing that allows banks to efficiently process various asset classes in a controlled and cost-effective manner. Again, NumeriX provides the glue to the equation as the computation engine that provides not only the capability to price new products, but also the ability to provide the risk calculations for P&L management.

The core value in the solution is not only in the quality and flexibility of the technology being provided but, almost as importantly, in the relationship between vendors in this case. We believe that this makes a huge difference to the clients that we serve. We have a very collaborative operating model and regularly meet to discuss trends in the market, demands that our clients face and how we can help our clients by staying in touch with all new advancements in technology and the business of FX derivatives. This ultimately provides a solution to our clients that not only provides pretty much everything they will need to run their business, but also provides a time-to-market efficiency and cost effectiveness through minimal development requirement that is extremely competitive.

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