

# Tackling the technical challenges of electronically trading Non-Deliverable Forwards



By Andy Kidd, Customer Relations Director, Eurobase Banking Solutions

The desire to electronically trade Non-Deliverable Forwards has really increased in recent years. This has been greatly facilitated by the bilateral Master Confirmation Agreement for Non-Deliverable Forward FX Transactions, which not only provides participants with the legal framework within which they operate but also underpins the business processes and rules to which automated trading systems must adhere.

This move towards standardisation in terms of definitions and market practices has been a pre-requisite of the growth in trading NDFs electronically, essentially enabling them to be treated as a normal outright – though with a few challenges from a technical perspective.

Although NDFs use a standard forward price, for example, it won't be the same forward price as that of the outright, so the system has to be able to effectively stream two sets of forward prices. It also has to be able to support the ability to

trade currency pairs on an onshore and offshore basis – and the rules that are applied to the transactions such as price fixing mechanisms – as well as price streaming to a myriad of multi-bank and trading platforms and channels. Fortunately, this is grist to the mill for those turnkey systems that take a gateway approach, especially where they have been designed to ease deployment of non-standard asset classes by adding functionality through off-the-shelf or bespoke adaptors.

These adaptors are infused with extensive knowledge and experience amassed over many years of building front office systems and dealing with the plethora of languages and protocols from both business operational and technical perspectives. New users can move very quickly into eNDF trading, but what should they expect from a solution?

## Connectivity and speed are critical

There are several features of any electronic NDF trading solution that are critical, the most important of which are connectivity and speed, followed closely by the ability to consistently produce a cost effective trade. A key objective is to help ensure market makers' prices are not only competitive, with acceptable margins but also reach their customers faster than the competition. Despite moves towards the adoption of open standards as part of the drive towards easier automation, such as those from TWIST (Treasury Workstation Integration Standards Team) and the FIX (Financial Information Exchange) protocol series of specifications for trade

related messages, much of foreign exchange execution still relies upon proprietary systems – and NDFs are no different.

Connectivity is a constant challenge given the proliferation of ECNs (Electronic Communication Networks), multi-bank platforms and portals. It is certainly stretching many IT providers' abilities to match software solutions to the rapidly developing communications infrastructure. Users expect the solution to take all of this into its stride, enabling them to quote ESP as well as RFQ to customers through as many web portals and trading venues as they wish. The gateway approach acts as the focal point for all of the various adaptors required by the eForex system, with the significant advantage of being able to centralise the control and permissioning features that are required to realise full value from the system.

The core gateway and all business processing are independent of any particular adaptor implementation and allow for adaptors to be connected to a host of protocols, as well as proprietary solutions covering a vast range of diverse requirements such as rate engines, execution venues, rate feed subscriptions/publications, together with front, middle and back-office applications.

Smaller banks are unlikely to compete with the top tier in terms of volume, but with the help of technology they can certainly compete on price and margins, leverage their client base and encourage client loyalty, and thereby grow profitably. Some of the very best eForex applications deployed by smaller banks are faster and more agile than those of their

bigger competitors and there is no reason why the same shouldn't apply to eNDF trading.

### Effective Portal Management

The ability to interface to a parameter management system is a core requirement. Known as Portal Management, this is the area where margins are set, together with all the rules that govern how the prices are customised and managed before they are published to subscribers. Taking margins as an example, a lot of thought needs to go into how they are administered. The ability to be as flexible as possible and to be able to apply margins according to a number of varying conditions is imperative and the best way to do this is through a cascading hierarchy or tree structure. This allows margins to be applied at a group level as well as at an individual level to meet generic and specific categorisation.

The list of criteria that can be applied is endless but at the very least, users should be able to specify that two types and these should be configurable based on:

- Publication, such as ESP or RFQ
- Market conditions, for example, normal or panic spreads
- Asset Class
- Bid, offer or a spread from mid-price
- Channel
- Portal
- Geographic area
- Amount or amount band
- Time Zone
- Configurable dealer intervention via dialogue

In essence, the Portal Management functionality enables limitless intake, compilation, manipulation and export of data. The user-defined rules monitor, control and direct how, when, at what frequency, to whom, and at what level eForex trades can be made. Can trades be made 24x7; only during the Asian trading day; anywhere in the world; on any system; with daily or hourly audit?

The system 'knows' and enforces all of the relevant business rules, holidays, how many decimal places to which rates should be quoted, and so on. The rate source or the chosen blend can be varied by asset class, tenor, currency pair, time zone, customer, bid or offer, or any other combination that may be required. This goes well beyond mere coordination of positions and prices. Furthermore, even though there are so many options and permutations, changes to the process rules take only a few seconds to apply, giving users tremendous flexibility, especially in volatile market conditions.

### How real can real-time get?

Turning to the second critical aspect of an eNDF-trading solution -- that of speed -- workflows and dataflow can be extremely complex. Yet the time lapse between requesting a quote or deal and executing the trade can equate to less than the blink of an eye.

The subject of data latency has been keenly debated within the eForex sector where automation has facilitated the almost instantaneous delivery of market data. It begs the question: how real can real-time get? This is a key consideration in eNDF trading, as banks, traders and customers must have absolute

faith in the timeliness and accuracy of the published prices on which they deal as well as knowing their exposure. As all traders know, hundreds of thousands of pounds, dollars or euros can be lost or gained in a fraction of a second. The use of a gateway that can take feeds from the banks' rate engine and deliver prices with as near-zero latency as possible greatly minimises the risk. In addition to arbitrage prevention measures, this blistering speed helps counter algorithmic or black box trading offensives.

### Manual dealer intervention

Of course no matter how sophisticated, fast and fail-safe a system may be, there are times when manual dealer intervention will be essential. Again, the rules and parameters can be applied through the gateway. Permissions



may be set according to different portals, asset classes, maximum and minimum amounts that may be traded and so on, to trigger automatic or manual intervention.

For example, say a trader receives a request for a quote from a customer that is outside its agreed maximum or minimum trade range, that request can be routed automatically to the person with the authority and permissions to decide whether or not to trade. Also, alerts can be used to escalate anything that is outside the rules or parameters, to the appropriate level of decision-maker.

Real-time manual dealer intervention is another important facility – this takes traders out of an inflexible, rules-based system allowing them to make informed decisions to resolve limit violations, extensions and excesses, and providing customers with the very highest levels of quality and service.

#### **STP aids compliance**

Executed trades immediately affect and update global position and trade blotters in real-time, while high volume publishing and instantaneous global distribution give organisations the dynamic control essential to manage positions and liquidity effectively and enhance customer product offerings and ability to compete in new markets. This is facilitated by STP (Straight Through Processing) providing seamless, real-time data transfer directly to front and back office systems.

The inherent business benefits of STP are increasingly attractive, not least because of the regulatory drive to move away from manual systems. One continuous end-to-end trading process from initial to completion, abiding by pre-determined fail-safe rules application has much to recommend it. It cuts down on human error, misheard telephone orders, initial input and re-keyed errors, for example and provides a continuous audit trail of transactions. This is especially pertinent in demonstrating regulatory compliance, such as with MiFID (Markets in Financial Instruments Directive), which are just as exacting of NDFs as of any other asset class.