## A STEP IN THE RIGHT DIRECTION



**TOM BUSCHMAN** OF SHELL DISCUSSES WHY ELECTRONIC TRADING PLATFORMS AND NEW INTEGRATION STANDARDS ARE A STEP CHANGE FOR INCREASED EFFICIENCY AND CONTROLS IN CORPORATE TREASURY.

n recent years, many large- and medium-sized companies have implemented or upgraded their treasury management systems (TMS). However, these systems are not yet to provide the fully integrated, efficient solution required for a seamless combination of liquidity management, transaction execution, settlement and reporting. Yet, electronic trading platforms are now maturing to the point that they can help companies to make headway in overall efficiency and controls. This requires standards for integration that can be realised with an effective co-operation of system providers, trading platforms, corporate clients and their banks.

**IMPERFECTIONS.** Over the years, simple trade registration and bank communication systems have developed into specialised TMS that can support market and position analysis, trade registration, settlement, position and transaction reporting, as well as cash management processes. Most treasuries have greatly improved their operations by implementing such systems albeit within often elaborate and expensive change management processes. Still, they are not yet capable of providing the full integration needed by treasury operations to support company-wide liquidity management directly linked to an optimised transaction execution process with maximised operational efficiencies.

This exposes a number of areas where processes are greatly lacking. Internal collection of liquidity needs often remains based on the exchange of spreadsheets, telephone calls or emails between subsidiaries and a central treasury operation. Transactions with external counterparties are usually carried out by telephone, which limits the ability to find the best counterparty bank for each transaction. Front office activities have to be checked manually for errors and compliance by back office staff. Also, transactions committed require manual confirmations with counterparty banks. Payments need to be executed with multiple settlement banks via a number of electronic funds transfer (EFT) systems that use different message standards. Further, these settlement banks need to be advised on amounts to be received via fax, telephone, email, or these same EFT systems with limited functionality. Messages coming back from the banks tend to be incomplete, necessitating a costly reconciliation processes. Communication between front, middle and back offices and accounting is not streamlined, and that causes additional difficulties and rework in all these areas. Finally, many high value transactions are processed in a non-standard manner, hampering efficiency and necessitating multiple manual controls.

Most TMS providers have been unable to come up with a single convincing solution that covers the broad range of corporate treasury needs. But the providers cannot be blamed for the banking community's failure to come up with standard settlement processes or their reluctance to involve fund and corporate clients in developments such as electronic trading, clearing and settlements. These realities combined with banking's focus on their own operational needs rather than clients' needs, have resulted in a confusing number of practices between treasuries, corporates and their banks.

**DRIVE FOR INTEGRATION.** With the development of XML-based real-time interfaces, reliable and relatively low-cost connections can be established between systems with different strengths in functionality. As a result, companies can realise efficient system support for their varying operations by implementing a limited set of well-designed interfaces. This avoids the eternal search for one system that covers all functionality needs for a longer period of time and its corresponding costly implementation. With the introduction of electronic trading via the internet, this process is being accelerated. Both companies and their banks have an interest in realising low-cost integration across organisational boundaries to better trade execution, settlement and controls.

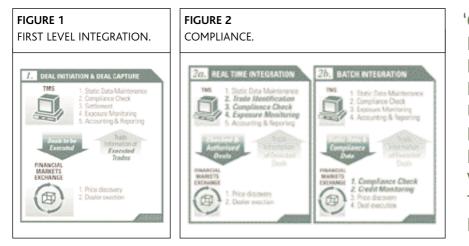
**FOREIGN EXCHANGE TRADING PLATFORMS.** With the proper functionality, the recently emerging internet-based trading platforms allow companies to benefit from integration between themselves and their banks and to share best practices in trading and settlement processes without lengthy and costly implementation processes. Such improvements can be continuous as long as the platforms continue to develop new functionality, which requires sufficient fair competition between the platforms. In this context, in 2000, Shell made an equity investment in Currenex, an operational,

independent, multi-bank internet-based foreign exchange (FX) service, and announced its active support of the platform's development.

Two groups of leading banks have formed consortia that have developed two FX trading platforms – Atriax and FXall – both of which recently went live. Other platforms that have launched for the corporate market are SunGard's STN and Centradia.

Developments in the internet and improvements in banks' IT infrastructures have propelled these platforms. For more than a decade, banks have gathered experience in electronic trading of financial instruments via specialised trading platforms such as EBS and Reuters, which were designed for use in inter-bank markets. While banks have been trading electronically with each other for several years, they have been reluctant to execute transactions with clients by any other means than over the telephone. However, three years ago, due to market pressure and the need to improve internal efficiencies, several banks moved to provide proprietary trading solutions to a limited group of clients. This required significant efforts on behalf of those banks to realise the internal integration and centralisation of credit management, pricing, trade execution and settlement operations. These banks have effectively created a backbone for the multi-bank electronic trading. Not all banks are Prime brokerage-type models should be added to allow companies to transact with any bank connected to the platform while settling with the name of one of its relationship banks. This allows firms to maintain relationships with a limited group of banks while providing access to the liquidity of any specific bank connected to the platform. Price discovery should also be supported by publishing on the platform unfiltered indicative market prices from multiple sources that are independently involved in the markets, such as inter-dealer brokers or inter-bank trading platforms.

**BETTER EFFICIENCY.** Apart from improved trade execution, the multi-bank trading platforms can boost operational efficiency through streamlining internal processes around the transaction execution. This streamlining starts with the first level of integration through uploads of deals to be executed to the platform and deal capture of executed deals in the TMS. This allows for a more efficient process for both clients and their banks (see *Figure 1*) but does not provide seamless STP. First, trades do not only consist of single deals that will never be altered or amended. Full STP requires, for instance, support for: amendments, cancellations, allocations, rolls and aggregations. Second, for trades to be settled automatically, controls need to be in place to ensure authorised

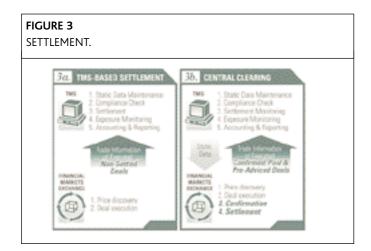


'CO-OPERATION BETWEEN TMS PROVIDERS, TRADING PLATFORMS AND THEIR USERS IS CRUCIAL IN DEFINING AND IMPLEMENTING THE BEST WAY TO INTEGRATE TRADING PLATFORMS WITH EXISTING TMS'

fully prepared technically, as yet for such electronic trading. To ensure sufficient openness and competitiveness in the FX market, as well as other markets the trading platforms may cover in the future, it is important these platforms, such as Atriax, FXall and Currenex, not only support multiple technical infrastructures but also partly manual processes on the banking side.

**IMPROVEMENTS IN TRADE EXECUTION.** Trade execution and straight-through processing (STP) has been greatly improved by electronic trading. In markets with frequently changing prices, such as FX and short-term cash markets, the best price for a particular transaction cannot be discovered easily over the phone. Differences in offerings between banks can be small in basis points but significant in monetary terms. The key is to find the counterparty bank with the liquidity offering that matches the needs of the company. Multi-bank electronic trading can significantly improve trade execution, as long as the banks provide multiple price discovery mechanisms which are designed to find the best price in a variety of circumstances. For instance, smaller transactions can be served with a reversed auction process but larger ones usually require a string of targeted transactions or management of orders. trading within predefined limitations. Since workstations are used to register static data and check compliance to dealer and credit limits, this would only require the TMS to provide fully authorised and verified deals to the trading platform (see *Figure 2a*). However, with the potential use of multiple trading platforms or trading practices, this would require a fully functional, real-time interface with, in the background, real-time data collection by the TMS. As an alternative, the TMS could with regular intervals provide – in between trading rounds, say – the restrictions within which the trading platform controls and updates the trading position until the next upload of data (see *Figure 2b*).

Processing of settlements can also be done in two ways; via a sometimes semi-automated process or by a highly automated and controlled process. The usual route of payment instructions to be initiated by the TMS can be adhered to (see *Figure 3a*), but this process can be less efficient than arranging settlement via the trading platform directly and providing the status of settlement to the TMS after each step in the process for monitoring and accounting purposes (see *Figure 3b*). Different solutions can suit different needs, but it also indicates that a pragmatic approach does not necessarily lead to multiple standards.



As long as platforms and TMS providers can come to an agreement on the limited options and define the data to be provided to or from a particular system, along with the protocols for the controlled exchange of that data, various solutions can be implemented rapidly without large investments by workstation providers or their clients.

**INTERNAL TRANSACTIONS.** The internal liquidity management of companies can also be improved with the use of electronic trading platforms. Transactions of FX, loans and deposits between a treasury and its subsidiaries are similar to those with external counterparties. Therefore, trading platforms can provide value by allowing internal trades to be executed via the same platform. It requires thorough netting and aggregation mechanisms, as well as the ability for routing of these transactions through different treasury companies, for these platforms to add value to existing internal trading processes.

At Shell, three operational models are supported. The preferred option is the automated zero-balancing of accounts between subsidiaries and central treasury. Second best is an automated transaction execution of FX, loans and deposits between subsidiaries and central treasury. The third model enables subsidiaries to operate through one single platform transactions with the central treasury whenever possible and the remainder with local banks when required. Since a single platform is being used, this allows centralised settlement of both external and internal transactions with the direct involvement of the trading platform.

**SETTING STANDARDS FOR INTEGRATION.** Co-operation between TMS providers, trading platforms and their users is crucial in defining and implementing the best way to integrate trading platforms with existing TMSs. Such co-operation will allow all participants to rapidly reap the benefits of STP – or realise greater operational efficiency, improved controls and reduced error rates by connecting activities via the systems that support them. It is this and the ability to accelerate the proliferation of best practices throughout the market which drove Shell to form Twist (the Treasury Workstation Integration Standards Team).

Twist is a coalition that brings together representatives from treasury departments, large banks, leading providers of treasury workstation solutions and exchange trading platforms, which are driving standards for electronic FX dealing and settlement among all participants of the FX market. The organisation is open to all treasury providers and platforms. It currently includes the founding member Royal Dutch/Shell Group's treasury operations department, Alterna Technologies Group, Barclays Capital, Currenex, Integrity Treasury Solutions, Reuters, Thompson Financial, PricewaterhouseCoopers, Richmond Software, SimCorp, SAP, Selkirk Financial Technologies, tapX, Trema, XRT and Wall Street Systems.

Initially, Twist focused on two main areas of functionality: producing a standard for uploading trades to be executed from supporting systems to a trading platform and for capturing FX trading details from a trading platform in internal treasury management systems. The group launched the first version of the treasury system interface standard in May 2001, followed by a second in September, which covers trade and settlement confirmation, new trades, collections of trades, amendments, cancellations, allocations, rolls, aggregations, and split settlements.

Several Twist members are already using interfaces based on this standard. The FpML FX Products Working Group has been working with Twist to incorporate the Twist specifications into its own standards. Further, Swift is collaborating with Twist to encourage harmonisation of emerging standards. More information can be found on its website at **www.twiststandards.org**.

**CO-OPERATION WITH BANKS.** There is an urgent need to improve the confirmation process with counterparty banks and standardise the settlement of transactions with the involvement of several settlement banks. Confirmations can be effectively dealt with by the trading platforms without the manual interference of a treasury's and banks' back offices as long as the post-trade events previously described are dealt with. Discussions are continuing with banks to accept the legality of confirmations registered by the electronic trading platforms.

Processing of payments and receipts requires improved interfaces between TMS and EFT systems or between e-trading platforms and such EFT systems. A multi-bank solution with well-designed interfaces that do not require limited manual controls is one good option. In October, Swift announced a solution for companies to gain access to the Swift network, which would allow corporates to be part of a standardised and secure settlement network. The opening provided by the banks for corporates to be part of Swift via bank-administered closed user groups is a positive step. The involvement of Swift in Twist has facilitated talks with settlement banks on how this bank-administrated Swift-access can work in practice and what standard process can be used to facilitate a seamless payment process.

**ENSURING BENEFITS.** Electronic trading and integration can improve the efficiency of treasury operations considerably. A proactive approach, however, is required to align all the interests of corporates, providers and banks. By driving the adoption of industrywide best practices at this early stage of the eFX market, fragmentation can be prevented, thus avoiding the development of multiple standards among providers or dominant market standards that do not suit all the different needs. Addressing the concerns of each party involved ensures that operational standards developed within, for example, Twist will benefit all and will help drive the efficiency and growth of the global FX market or other markets to be addressed in the future.

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