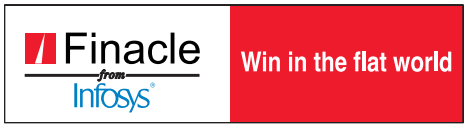
PERSPECTIVE

# The Changing Face of Treasury Technology



A slew of market factors are forcing banks and other financial institutions to reexamine their Treasury business and technology strategies to better meet and exceed the requirements of internal and external customers. We believe that there are five critical trends in the marketplace which are forcing this change and banks and financial institutions which successfully implement these changes will emerge as future leaders.

First with the explosive growth of internet technologies and increased access to information which was earlier not available (especially to external customers of Treasuries), there is tremendous pressure on margins which is leading to banks looking for ways to cut costs and look at alternates sources of income. Second - with explosive growth in derivatives market where the margins are still high - is forcing banks to move aggressively in offering derivatives to their customers. Third - rapid regulatory changes and compliance requirements such as IAS 39, Basel II, Sarbanes-Oxley Act (SOX) and others that have emerged in the last few years mean that banks and their treasury systems need to keep pace with increased demands made on them. Fourth - trading volumes continue to grow at exponential pace requiring treasury systems to be scalable. Lastly internal and external integration is paramount to achieve STP, reduce costs and also make financial reporting easier.

## Treasury margins continue to be under pressure

Bank and financial institution treasuries are traditionally involved in in-house trading in foreign exchange, money markets, securities and derivatives and also offer these products to their corporate and retail customers. Traditionally most of the customer offerings have centered on foreign exchange which used to contribute bulk of Treasury revenue from customers and a sizable proportion of treasury revenue. The global FX market today is much different than what it was even few years back. The volumes have grown exponentially while at the same time eroding margins or what traders call bid/ask spreads. According to a BIS (Bank for International Settlements) survey, the foreign exchange market size is estimated to be huge at about US$ 1.90 Trillion every day. Foreign exchange Swaps have been growing rapidly in volume in the last 15 years at approximately 15% CAGR, while spot and forwards are growing at slower pace. On the other hand the revenue is growing much more slowly thanks to lower margins and increased competition. Since mid nineties banks have been offering electronic platforms for trading for their large institutional customers. In the last few years the competition has increased even further with the launch of multiple dealer portals where the banks have to literally fight to offer finer quotes to get institutional and corporate business. A leading investment bank estimates that their industry will see a 2% increase in revenues from foreign exchange, reaching nearly $15 billion in 2006. Their report confirms that bid offer spreads have come down sharply in FX due to competition and greater use of e-trading. The narrowing of FX spreads from e-trading has changed the "winners" in this market from the large global banks to those who invested first in their e-trading platforms, according to the bank.

Banks can realize substantial cost savings by integrating their treasury platforms. Treasury offerings are normally classified as front, middle and back office, and typically the user set is different. Front office functionality includes Deal Capture, Deal pricing, position keeping and limits monitoring. Middle office functionality includes limits and risk management. Back office functionality covers accounting, settlements, confirmations, reporting and reconciliations. Traditionally banks have deployed different systems in these areas with the increased overhead of integrating them. Over time the banks have realized the importance of increasing operational efficiency and reducing operational delays by using straight-through-processing applications which combine front, middle and back office functionality in a single application. Further banks offering e-trading facility to their institutional customers have seen increased cost savings on delivery of this service by further integrating customer facing applications with back end treasury applications.

The way forward is to have a single application covering front, mid and back office requirements. In addition to reducing cost of operation, it helps in improving operational efficiency.

## Explosive Growth in Derivatives markets

As such, derivatives are now a significant part of the profitability and balance sheets at investment and commercial banks, accounting for over 60% of profits in key trading products such as FX, credit and rates. Derivatives include Exchange traded futures and options, swaps, forwards, FRAs, swaptions, OTC options and credit derivatives.

According to quarterly report released by the "Office of the Comptroller of the Currency" (OCC) for September 2005, Derivatives held by U.S. commercial banks increased by $5.1 trillion in the second quarter of 2005, to $96.2 trillion. On the whole the derivatives volume is growing by between 20 to 150 per cent year over year depending on the type of derivatives one is talking about. This, coupled with the fact that margins in derivatives business are still high, is leading banks to develop capabilities in trading derivatives with inter-bank counter parties and in offering derivatives to their institutional and corporate customers. Credit derivatives remains the fastest growing segment within derivatives increasing by $981 billion, to $4.1 trillion, OCC reported.

Banks need sophisticated systems to support trading in derivatives. Firstly such systems should have enough breadth to cover all standard derivatives contract available in the market today and also in near future. The system should also be customizable to accommodate new structures that are expected to come in the market. The next important attributes of the required system is pricing and risk management capability. Derivatives and risk is synonymous. Banks will not trade in derivatives unless their treasury system is able to help them in understanding and forecasting the risk associated with a derivative transaction. This covers both credit and market risk. One important aspect of measuring derivatives risk is Monte Carlo "Value at Risk" analysis using market standard pricing models.

New age treasury systems need to support standard and complex derivative instruments as they become more commonplace. Derivatives now contribute to lion's share of Treasury profits.

## Rapid regulatory changes

Last few years have seen many rapid regulatory and reporting changes necessitating changes in the Treasury solution being used by banks. For example accounting related changes such as FAS 133 in US and IAS 39 in Europe and the rest of the world mean that banks have to start preparing their statutory reporting in the new formats in pre-decided time frame. This has necessitated the Treasury system vendors to offer these capabilities in their current products so that the user banks are not inconvenienced. Further Basle II requirements with different timelines for compliance in different host countries require further changes in the system to capture the regulatory cost of capital for market operations. Sarbanes-Oxley Act (SOX) in US is another such example wherein multiple systems in banks are affected. Though it is applicable only for US listed banks, many expect a similar legislations in Europe sooner rather than later.

Hedge accounting in Europe – IAS39 in particular – continues to generate a confusing array of interpretations and so the need for technology support. Hedge accounting combines the classic elements of accounting with risk management. Treasury application must be able to track the hedge effectiveness during the life of the underlying. The need for system support is obvious, especially when one considers that hedge relationship is possibly changing all the time. Given that the standard is evolving and also the fact that individual bank will have a slightly different interpretation from the previous one – means that the technology solution must be configurable and flexible.

Rapid regulatory changes in last few years have meant a constant upgradation of Treasury systems for supporting new requirements in required time frame. This trend is expected to continue.

## Growth in Trading Volumes

As the standard treasury products such as spot FX, money market loans become commonplace, they have seen increase in trading volumes. Exchange listed derivatives are already standardized and there is a market move to even standardize plain vanilla OTC contracts such as options, swaps, repos so that they become amenable to electronic trading. This is expected to give a fillip to trading volumes in these products further.
On the other hand, there is a discernible move with banks centralizing their treasury operations on a single system thus increasing load (what was earlier supported on two systems now needs to be supported on a single system). While the earlier systems were expected to handle volumes of a few hundreds in a day, the new requirement means that systems have to handle such volumes every minute! Architecture of the Treasury systems becomes important in this case. Banks now need Treasury systems which can scale up rapidly according to increasing volume requirement in a cost effective way such that bank's investment in the system is not compromised at least for the next few years.

Treasury systems need to be scalable to support increased trade volumes and making sure bank's investment in IT is not compromised.

### Internal and External Integration

Internal integration relates to integration of the Treasury management system with rest of the bank systems. Treasury operations are not the only aspect of bank's business that the treasurers need to worry these days. In addition to trading and treasury sales activities, treasurers need to worry about transfer pricing arrangements with rest of the bank, managing the market risk for the whole of the bank, managing asset liability for the bank etc. This requires tighter integration with rest of the bank's systems, wherein the each system (treasury and rest of the bank system) have access to each other's data for effective decision making.

External integration relates to integration with systems outside the bank. Integration is required with electronic dealing platforms such as Reuters Dealing, FXAll and Bloomberg. Treasury systems need to be interfaced with rates feed from Reuters and Bloomberg. Treasury systems also need to be interfaced with electronic trade confirmation and settlement systems such as SWIFT, RTGS etc. In addition for banks doing substantial client business, the Treasury systems need to be integrated with client facing systems for straight through processing.

Today's Treasury systems need to be integrated with bank's internal systems as well as with outside systems such as dealing platforms, rates feed, confirmations, settlements and client facing systems.

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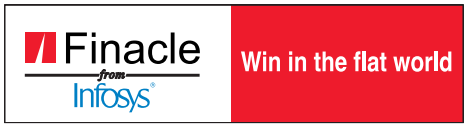


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