
Open for business

The world's exchanges are now evolving in 'fast-forward'. The unexpectedly rapid penetration of electronic trading in listed derivatives in Europe (DTB's takeover of the Bund from Liffe over the last 12 months; Matif's transition to electronic trading in a few weeks; Liffe's intention to accept electronic trading and demutualise) are dramatic examples.

The rise of electronic trading, notably on futures exchanges, requires, in many cases, a major technology change. This change represents a strategic crossroads for exchanges: they now have the opportunity to join one of the emerging global standards in trading and clearing systems. Doing so makes tremendous sense, and promises to restructure the world's capital markets for many years to come.

There are strong economic reasons for standardising exchange and clearing house technology.

The globalisation of capital markets has been accelerating for some time. This

If exchanges want to get ahead, they can't stay closed, advises André Cappon

means that the investor community and broker dealers now insist on round-the-clock, user-friendly, efficient access to various markets worldwide.

Only a global network of 'liquidity centres' – strategic alliances of exchanges, tied together, via technology – can effectively respond to this demand. In fact, this interconnected world of investment will include not only traditional exchanges, but also OTC interdealer brokers and broker-dealer firms.

Cost-effectiveness will be fundamental to this new world of investment. All participants in the capital markets, be they broker-dealers, exchanges, interdealer brokers, clearing, depository and custody organisations, will continue in relentless pursuit of lower costs.

Ultimately, cost-effectiveness requires the minimisation or simplification of interfaces between different information systems – in other words, seamless connectivity among the liquidity centres. Therefore, standardisation of systems and of the interfaces among systems is called for, both for exchanges and their members.

As in other areas affected by information technology, there will be a battle between closed and open technology architectures for exchanges and capital markets in general.

In every single contest between closed and open architectures – Betamax vs VHS, Apple vs Microsoft, proprietary ATMs vs ATM networks – the open approach has eventually won, even though the closed architecture technolo-



gy was often the pioneer and sometimes offered a better technology.

Closed standards are unsatisfactory, since they typically force the user into a vertically integrated model which is eventually limiting. Open standards are usually superior, because they support broader and more diverse markets and needs. They appeal to many more users, to 'complementors' (eg. application software vendors), and end up creating more value for all participants in the long run through economies of scale and 'network economies'.

It is a fair bet that open architecture technologies will also eventually win in the world of exchanges.

Closed-architecture technologies may be successful in the initial stages of transition to electronic markets, as demonstrated by DTB's conquest of the Bund. But closed-standard technologies are threatening, because they are monopolistic. They imply one exchange and its clearing house installing a network of (closed architecture) terminals all over the world, converting members of other exchanges to remote member status and eventually (why not?) opening the network to end-users, who would find it natural to become trade members. This dilutes the value of membership, and is likely to evolve towards a single, very powerful central exchange-*cum*-clearing organisation, whose membership includes both brokers (whose value added is becoming *de minimis*) and end-users or investors.

It is not in the interest of members or investors to allow such a concentration of

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power. Open architecture technology standards are preferable because they naturally support a pluralistic future for exchanges.

Exchanges are evolving in ways that will require them to connect seamlessly to a broad variety of players: global broker-dealers (who tend to be members of most exchanges), independent clearing

house organisations (such as LCH), interdealer brokers and payment systems.

Exchanges will also increasingly need to connect seamlessly with *other exchanges*. Strategic alliances of exchanges, which are occurring at an increasing pace, are a natural consequence of globalisation, and of the need to offer investors access to a variety of markets. A strategic alliance of several exchanges, sharing a common technology for market access, trading and clearing, is the most efficient way of achieving this.

In such an architecture, each exchange can maintain the professionalism associated with membership and, through cross-membership agreements, offer members effective access to multiple markets. With open standards, several exchanges can share a common clearing house, or may decide to introduce cross-clearing arrangements, such as mutual offset. They can share common electronic access networks and even share a common trading engine if they so choose.

While this may constitute a 'virtual merger' of exchanges, it offers the benefit of *plurality*: for example, multiple exchange organisations can co-exist on products while co-operating on factors such as large-ticket technology costs. Such an arrangement has a better chance of preserving a special role for members, which means it is likely to support more liquid (hence more efficient) markets.

There are two major open architecture technology standards for exchanges today: the OM Click system and the Franco-American NSC-Clearing 21. [For more on the latter, see this month's On the screen.]

Both have been successfully installed in multiple equities and derivatives exchanges around the world, and are actively competing with each other. NSC-Clearing 21 is particularly promising: it is technically advanced, can handle the high volumes of a large exchange and, most importantly, it is supported by several top exchanges including Paris Bourse (NSC developer) and Chicago Mercantile Exchange/Nymex (Clearing 21 developers). It will also be made available on a co-operative basis, through a technology consortium, which other bourses can join. The co-operative philosophy of the enterprise will make it very attractive for new exchanges to enter into what is likely to emerge as the leading technology standard for exchanges and clearing houses. ❖
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