Reinventing exchanges

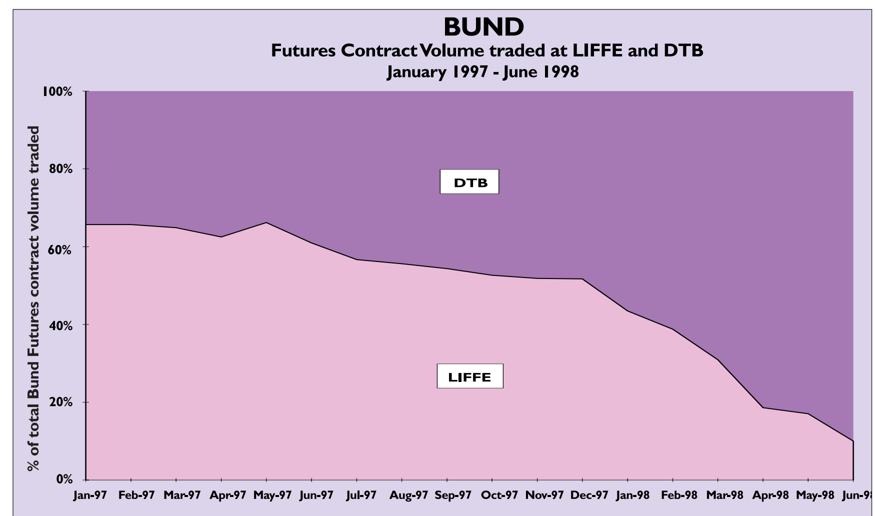
In the first of two opinion pieces, **André Cappon** *asks what exchanges are doing to survive in today's sophisticated financial environment, and where this change will lead them*

Given the unprecedented turmoil they are currently experiencing, it is fair to wonder whether exchanges still have a future. The answer is 'Yes, but.' To survive, exchanges must go through unprecedented change. So far, we have seen only the beginning.

Consider the trends and events of the last year or so:

- **Electronic trading:** In derivatives, Germany's electronic exchange DTB managed to wrest away the benchmark Bund futures from open outcry Liffe, CBoT, CME, and Liffe all announced plans for going electronic to varying degrees, while France's Matif went the whole hog. Among stock exchanges, the transition to electronic trading has to a large degree already occurred.
- **Convergence with the OTC market:** The CBoT-Prebon and Cantor Fitzgerald-New York Board of Trade alliances constitute a *rapprochement* between exchanges and OTC market interdealer brokers. They offer 'one-stop shopping' electronic trading combining cash-listed derivatives-OTC derivatives-repo as well as cross-margining facilities, which reduce capital requirements for traders pursuing complex, arbitrage-oriented trading strategies. Several similar initiatives are underway in Europe, notably LCH's SwapClear, Isma's Coredeal system, and Garban's European Repo Exchange.
- **Major decline of seat prices:** Although volumes have continued to grow, seat prices on exchanges have declined by some 30-80% in 1998. The most affected have been those trading financial derivatives, which seem most vulnerable to electronics.
- **Mergers and strategic alliances:** In the US, there were mergers between New York Cotton-Coffee Sugar Cocoa Exchange, NASD-Amex-Philadelphia, CBOE-Pacific Exchange options business, and on-and-off common clearing and merger talks among CBoT and CME.

In Europe consolidation has been going on for a while in anticipation of Emu. National stock exchanges in practically all of Europe (except the UK and Spain) have already taken over the corresponding derivatives exchanges in a first round of consolidation. The recently announced alliance between the German exchanges and London Stock Exchange is the beginning of the second round.



A global network, including the German exchanges, London Stock Exchange and CBoT and NASD in the US has already emerged. Other global and/or regional alliances are currently in the works: one of them will probably be built around the Cantor, Fitzgerald-New York Board of Trade alliance, while another might be built around the recently announced CME-Matif-Meff alliance.

- **Demutualisation, privatisation & IPOs:** Exchanges are changing from their traditional business model ('mutuals' or co-operatives of members) to new structures which facilitate mergers and the transition to electronic trading. The Swedish and Italian exchanges are already privatised. Liffe and CBoT have started demutualisation processes. CME has recently announced it is considering an IPO. Pacific Stock Exchange has announced the spin-off of its equities business, as a private for-profit entity, while several other exchanges are currently thinking about IPOs.

What is going on? Where is all this heading?

The traditional business model

Traditionally, exchanges were set up somewhat like private clubs, where you had to purchase a seat and trading was handled by open outcry on a floor. In addition to collecting a 'toll' (the brokerage com-mission), at the market entrance, the floor community had a privileged view of trading flows which enabled members such as locals, market-makers and specialists to make significant money. Exchange members, therefore, have always been among the first to resist screen trading because it would eventually 'level the playing field' and make that same information available to anyone with a trading screen.

The traditional model of governance of exchanges, typically 'one member, one vote', has reinforced the status quo. This 'democratic' philosophy has ensured that small members, such as locals, have a strong influence. Exchanges have always had a philosophy of protectionism for their members, in particular the smaller ones.

Exchanges, as businesses, have historically been run as quasi non-profits. They charge listing fees (for stocks), transaction and clearing fees (typically they are vertically integrated with, or control access to, the clearing infrastructure). They also make money by selling market data. Exchanges usually try to make a small profit (enough to finance investments in technology or facilities), and if the profit is significant, they typically return it to the members in the form of rebates or in-kind, through a variety of services.

Traditional exchanges have been exposed to a moderate degree of competition. Often they enjoy the protection of regulatory or currency barriers. Once they achieve liquidity in a product, they usually achieve a fairly secure position, since, in an open outcry world, liquidity is very sticky. Often they have a monopoly access to clearing, settlement and depository facilities.

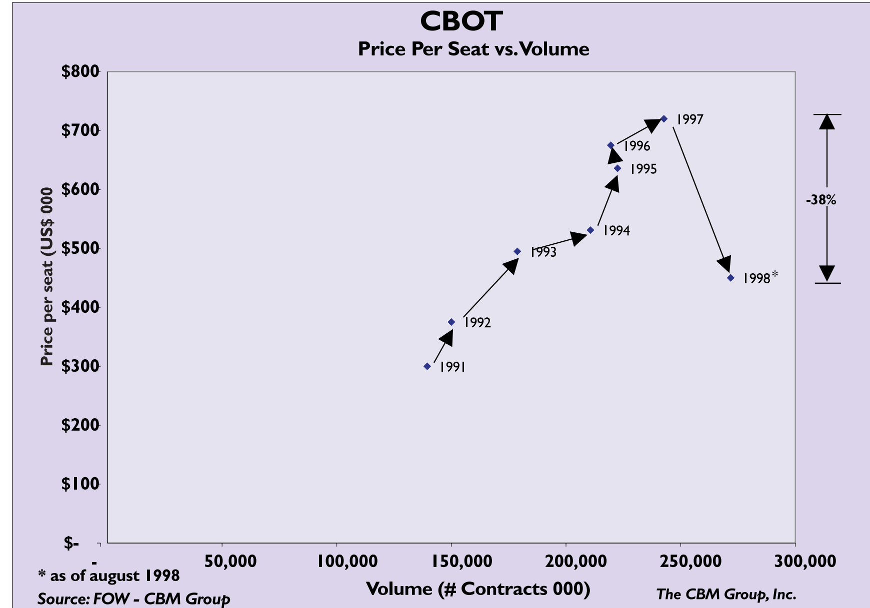
This traditional model is under attack, as several forces are conspiring against it.

Competition is intensifying. For the derivatives exchanges, the primary competition comes from the OTC derivatives market, which has grown significantly faster than the exchanges. The OTC market is more attractive to the large players, who are comfortable trading with each other 'in size' without the benefit of a clearing house and without the danger of being 'picked off' by the floor community. For equities, the primary competition is the traditional 'upstairs' or block trading market, and increasingly, the proprietary electronic trading systems, such as Instinet.

Exchange users, be they members or their clients, the ultimate investors, are changing. The 'buy-side' is becoming increasingly institutionalised – bigger, more powerful, more sophisticated in terms of market knowledge and trading strategies. The 'sell-side' is consolidating: some 25% of securities firms and around 30% of futures brokers have disappeared in the US through mergers and acquisitions in the last ten years.

Brokers, dealers, exchanges, and inter-dealer brokers are all subject to relentless cost pressures. Each user of the capital markets is seeking increased liquidity and efficiency. And increased efficiency must come from economies of scale and better technology.

Technology, in particular, is a key driver. On the one hand, 'Moore's Law' tells us that the cost of computer processing power will continue to drop predictably, year after year. 'Metcalfe's Law' tells us that the value of a network to its users increases exponentially with the number of users. The joint effects of the two is truly mind-boggling: technology provides global seamless connectivity among investors and dealers at a trivial cost. With the proper 'wiring', the world's capital markets system can handle ever-increasing liquidity at little or no incremental cost.



A new business model

How are exchanges likely to evolve? Let us review each step of value-added that an exchange can provide:

● **Market access**. Customers will access the market from workstations connected to electronic networks. They will insist on open architecture networks and order routing networks which enable them to transmit orders to multiple competing brokers and exchanges. The broker will be a 'node' in the network. His value-added will include advice, reviewing orders for suitability, and taking the client's credit risk. For these services, brokers will continue to charge commissions, but commission rates will be under tremendous pressure: there will be overt discounting and implicit discounting through flat pricing and bundled pricing approaches.

● **Price discovery/matching buyers and sellers**. These key trading functions will be mostly electronic. Price discovery will be facilitated by all sorts of information, such as indications of 'depth of book' (buyer and seller interests at price levels around the last market price) and 'electronic crowd size'. At some point, virtual reality technology may be applied to recreate the emotion of the trading floor on the computer screen. In any case, the continued penetration of technology will compress the revenue available to pay for the trading function.

● **Clearing and settlement**. Clearing houses will be unbundled from exchanges and will operate as standalone businesses. They will clear both exchange-traded and OTC products. They will offer multiple levels of service, ranging from service bureau-like collateral management and netting, to an optional full credit guarantee. To perform these functions effectively, clearing houses will seek credit ratings from the leading rating agencies. They will need ample capital, and will also seek third-party credit enhancement from high-rated insurance companies, such as AIG or the monoline bond guarantors. Clearing members will prefer to become shareholders of the clearing house rather than remain traditional clearing members who must commit their own capital. Overall, clearing is likely to generate relatively more value than trading.

● **Membership**. The meaning of *exchange membership* will evolve radically. In their search for liquidity and new products, exchanges will need to open up their membership to many more specific, eg product-oriented, categories of members. There will be remote electronic memberships, and cross-memberships from sister exchanges. Active customers will become 'trade members' in order to take advantage of lower exchange fees. As a result, the meaning of membership will be progressively watered down.

In anticipation of this, and/or forced by the current pressure on seat prices,

exchanges will increasingly separate or decompose ownership rights from trading rights. The ownership rights may be floated in the stock market through IPOs. This will have the advantage of liquefying and setting an independent market valuation of the ownership of the exchange. After that is done, the meaning of membership will be closer to that of active provider of liquidity. Providers of liquidity will be rewarded through volume-related discounts or rebates, or in some cases will be rewarded instantly: if they post a firm order on the screen good for a given period of time, ie provide liquidity, they get free execution.

● **Mergers, strategic alliances and networks of exchanges**. Economies of scale and the cost advantages they engender justify mergers of exchanges. Seamless connectivity on a global scale, made possible by technology, and able to support the global investor community, is quickly becoming a major competitive advantage. These forces are leading exchanges to join in strategic alliances or global networks. The long-run 'equilibrium' situation will probably be one of a few, perhaps 2-3 global networks, and perhaps some regional blocks of exchanges.

While a single dominant world exchange system may be justified as a 'natural monopoly', it is unlikely to happen. The world's financial community will prefer competition among a few serious major players, which will stimulate price competition and innovation. Each of these global exchange networks will probably share technology standards, share global communications networks or intranets, offer cross-membership to each other, and perhaps shared trading engines and common clearing facilities. They may divide the world in terms of products, ie the European partners handle all Euro-denominated partners and/or may introduce a system of listing fees and intellectual property rights for all products including derivatives. Exchange IPOs will facilitate these deals by providing an independent valuation benchmark for exchanges.

The lasting value of exchanges

In the long-run, in an all-electronic world, what will be the value and role of exchanges?

What will prevent exchanges from being eventually reduced to nothing more than glorified Web sites?

Exchanges have several unique and lasting values, which go beyond supporting the trading function or providing clearing services:

● They provide a regulated environment for trading, which normally offers transparency, some guarantee of fairness and compliance.

● They provide a convenient locus for regulators to carry out their duties

● They certify members, and membership in the exchange normally represents a badge of professionalism

● They deploy a valuable *product* R&D effort and forum for product design and standardisation

● Exchanges perform a valuable marketing and education service at the product level, which complements the brokers' marketing efforts

These functions, carried out in an effective and professional manner, create the exchanges' reputation – 'brand equity'.

The evolution towards electronic trading may well diminish the exchange's value-added as a locale for trading, but it will not affect these other values. Just like electronic commerce ironically often reinforces the value of established brands, electronic trading may eventually help the world's best exchanges not only to survive, but to conquer new markets.

What is clear, however, is that the world has become much more competitive for exchanges, and that they will need to go through a concerted effort of strategic repositioning. In simple terms, they will need to reinvent themselves. Failure to do so rapidly will spell doom. ❖

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The end of the world as they know it?

The OTC market is forcing a sea-change in Europe's exchanges and clearing houses. **Gerald Sampson** *believes it might already be too late for those without the right strategy*

The role of exchanges is less and less fundamental as time goes by, and the OTC markets effectively introduce liquidity and price discovery via efficient communications tools. Bilateral collateral management allows a proper form of security blanket, which means the three main raisons d'être of the exchanges are being seriously scrimped. Even at the securities trading level, the largest and most liquid market in the world – that of US Government issues – is an OTC one.

As we approach the fateful starting date for the Euro, the question of how many of the fifteen-odd derivatives and stock exchanges the EU will need is becoming more openly discussed: the whole idea of some of them disappearing altogether is no longer a taboo subject (although identifying which ones might disappear remains poor form). Below, we outline a few broad ideas of what exchanges and their clearing houses might do to turn the tide in their favour.

First, a casual observation surrounding the potential divergence between exchanges and their clearing houses: there is inherently less antagonism between clearing houses – whose mission is to circumscribe risk – than between exchanges which compete to localise trading liquidity at each other's expense. One can easily imagine exchanges competing against each other in the new Europe, bent on national pride and jealous of the volumes they have achieved to date, while 'their' clearing houses vie for additional business throughout Europe and beyond by pursuing a more collaborative route. Although there is a more than apparent contradiction in terms to expect