David Clementi: Technological innovation and e-commerce – the implications for derivatives markets

Speech by David Clementi, Deputy Governor of the Bank of England, at the opening reception of International Derivatives Week, held in London, on 19 June 2000.

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Ladies and Gentlemen,

I am delighted to address you at the start of what, I am sure, will be an informative and thought-provoking International Derivatives Week.

Given the recent rapid pace of technological development, it is fitting that this year's conference focuses on e-commerce and its impact on the derivatives industry. This is certainly a topic of great interest to the Bank of England. Maintaining the stability of the financial system and the effectiveness of the UK's financial services are key objectives for us and recent developments are highly relevant to both.

Nobody doubts that technology has rapidly changed the financial landscape, and will continue to do so. One only needs to spend time online to realise that virtually anything - from commodities, to cars, to Pokemon cards - can be bought and sold by someone with access to a terminal. Electronic trading and communication networks have greatly increased the "reach" of the traditional financial marketplaces, but at the same time allowed a wide range of new trading system providers to enter the markets at relatively low cost. It is a challenge just to stay abreast of the latest developments.

I would like this evening to say something first about the role of exchanges in this new environment, and then touch on the role of technology in changing that environment and the implications for clearing houses in managing the resulting risks.

Role of exchanges

So far, the established derivatives exchanges retain substantial and often growing volumes although, in recent years, OTC derivatives trading has expanded much faster than on-exchange trading in many areas. On-exchange business continues to be dominated by Chicago in the US and by London, Frankfurt and Paris in Europe. The LME remains the world leader in its field, as do the IPE and Nymex in theirs. But the number of new trading systems emerging in the various markets demonstrates that the winds of change are blowing hard, and today's market leaders are aware of the need to innovate to survive in a rapidly evolving market place.

Exchanges are responding to these challenges in a number of different ways. Some exchanges look to leverage off their involvement within wider groups containing a range of trading, clearing and settlement systems. This is not, however, our preferred structure in London; the different tiers have different characteristics and we believe it is generally in the best interests of users if trading, clearing and settlement are kept apart.

Some exchanges have chosen to merge or ally with others to provide a larger, more liquid and more competitive marketplace. And all are competing for business in a way unthought of a few years ago - witness the competition between LIFFE and Eurex for the long and short ends of the euro yield curve. The latest score in that particular England:Germany match is one all. No doubt German supporters think this score-line would have been a fairer result on Saturday night, given the balance of play!

Role of technology

But the common factor in all of these developments is technology. Physical trading floors for exchanges are fast-disappearing, particularly on this side of the Atlantic, replaced by virtual floors with trading conducted electronically. And exchanges are utilising their markets and system expertise to become trading system providers as well as market operators: OM has been a leader in this field for some time now, and LIFFE has announced some exciting plans - the creation of - fittingly enough - "LIFFE.com" and its recent tie-up with Cap Gemini.

On balance, these developments must be in investors' interests. They reduce costs, improve access and allow exchanges to respond quickly and effectively to users' changing needs. But they also present a number of challenges. To move from a trading floor, with its mix of locals, brokers and market makers, to an electronic order book, undoubtedly changes the dynamics of a market.

For regulators, remote trading also brings some difficult challenges. Technology does not respect national boundaries; nor does it recognise different jurisdictions. In a world where a German trader can trade on an exchange in London with a counterparty in the US who uses a French technology provider and a Belgian settlement agent, the question of how to ensure that all parts of the process are regulated effectively is a tough one.

Some argue there should be some kind of pan-national "super-regulator". Perhaps that is where we will eventually get to although one worries about its potential for the worst sort of bureaucracy: and in the meantime we think that an approach based on close cooperation and the exchange of regulatory information, is a pragmatic way forward and more likely to balance the need to protect investors and the need to encourage innovative, responsive markets.

But let me turn my attention back to the opportunities that technology offers. The scope for new contracts on B2B and e-commerce networks is enormous. Contracts that would have taken some time to establish themselves in a pit can be quickly listed on screen at relatively little cost. Trading is now possible in such diverse commodities as electricity, telecoms bandwidth and even the weather. The organisers of this event may, in future, be able to hedge their exposure to fluctuating wine prices using exchange-traded futures based on the finest premier cru, I suspect this is one contract where traders would be happy to go to physical delivery. We central bankers will have to stick to our usual vin ordinaire. In any event it will be fascinating to see what other contracts emerge over the coming months.

Of course, not all contracts that are launched will be successful, and it's interesting to reflect on what makes a successful derivative contract. Lessons can often be learned from looking back to the past.

Not far from this location is the home of the London Metal Exchange. Its origins can be traced back to 1571, when traders in metal and a range of other commodities began meeting at the Royal Exchange. What was originally a domestic market in physical metal became a major global market, and by the early 19th century traders had been forced to use nearby coffee shops. As the UK started importing large quantities of metal from abroad during the Industrial Revolution, the need emerged for importers to protect themselves against price movements during the long voyage from places like Chile and Malaysia. The "futures" market which developed from those humble beginnings continued to grow and, in 1877, the London Metal Exchange Company was formed.

That market was successful for a number of reasons. Volatility in the price of the underlying product made the contract attractive to hedgers and speculators alike. Technology - the telegraph would you believe! - encouraged the market's growth by making shipment arrival dates more predictable. The LME had a first mover advantage that still stands. Liquidity flourished as traders followed one another in using the new market. So there are a number of lessons for today's exchanges, to do with the need to respond to market needs, the need to make full use of available technology, and so on.

Role of clearing houses

It will be very little surprise to many of you that, as the central bank, the aspect of these developments which interests us most is the management of risk.

Clearing houses have traditionally played a central role in the derivatives markets and continue to do so as those markets expand. They are also increasingly active in the underlying cash markets. It's clear to see why the markets value their service and it is fortunate that, in the London Clearing House, London has a first class central counterparty. But clearing houses concentrate risk at a single point. And, by serving multiple markets, they provide a route for disturbance to be transmitted between markets. So the way they manage their risk, particularly as they expand their activities, is important - to you, I hope, as much as to us.

Diversifying across products can provide benefits, particularly if this simultaneously diversifies a clearing house's exposures across existing clearing members. And expansion into new markets where existing members are already active provides clearing houses - and potentially regulators - with more information on members' overall trading books which they can use to manage their risk more effectively.

Diversifying across markets does not, of course, help when, for some reason, the markets all move together. And it is vital, in any case, that clearing houses continue to have robust arrangements for monitoring and controlling risk, including proper margining procedures and adequate financial resources, and that their procedures and ownership structure gives members the incentive to ensure that risk is adequately controlled. That suggests to us that control and ownership of the clearing house should reside with clearing members, who are, in any case, likely to contribute a major part of any mutual guarantee fund.

So we welcome the fact that the product of the LCH/Clearnet discussions is intended to be a non-profit mutual organisation which gives ownership to its users and look forward to as productive a relationship with the new body as we currently have with LCH.

The topic of this week's conference - putting the dot.com into derivatives - presents challenges but also opportunities. If we can address both, the derivatives industry will be better placed than ever to meet the needs of users world-wide.

I wish you all an enjoyable week.