With the globalisation in financial markets, removal of unnecessary regulatory hurdles and standardisation of regulatory practices, demutualisation of exchanges, and advances in IT and telecommunications technology, stock and derivatives exchanges worldwide are driven to consolidate to stay competitive.

Consolidation of stock and derivatives exchanges has increasingly occurred within jurisdiction but to a different degree in the three regions.

In Asia, major stock and derivatives exchanges have demutualised and consolidated within a jurisdiction. The consolidation takes the form of a merger of the stock and derivatives markets under a holding company structure. Very often, the associated clearing houses are included as an integral part of the business model – the so-called “vertical silo” – which seeks to increase efficiency by integrating trading and clearing, thereby reducing costs for participants. Examples include the Hong Kong Exchanges and Clearing Limited, the Australian Securities Exchange, and the Singapore Exchange (SGX). These vertical silos, however, remain national exchanges and they are supervised by domestic regulators.

Given exchanges in Asia are still generally considered entities of national or strategic importance, consolidation has not yet happened across the region. There are significant differences in legal structures, currencies, languages, political frameworks and culture across the region. These differences may make any attempt for exchange consolidation across the region more difficult. Notwithstanding that, SGX has bought a 5 per cent stake in Bombay Stock Exchange of India to diversify and boost revenue growth.
In Europe, consolidation of stock and derivatives exchanges has also occurred within jurisdiction. An example is the Deutsche Borse, which has integrated the stock and derivatives markets and their associated clearing houses in Germany and is operated as a vertical silo as well. It is interesting to note that the recent approval of ICE Clear Europe by the UK Financial Services Authority (FSA) signals that the UK may also set to follow the US model of clearing arrangements in the futures markets, where exchanges own their own clearing houses in a vertical silo, although some consider that such development in the post-trade environment can easily foreclose competition in the trading of derivatives.

In parallel, consolidation of stock and derivatives exchanges has also occurred across the continent in Europe. Facilitated by EU directives, a common currency and an increasing pan-European investor base, Euronext N.V. was established by the merger of the stock and derivatives markets across the continent in Belgium, France, the Netherlands and Portugal, as well as the derivatives market in the UK. The continental exchanges are supervised by their respective home regulators with regional cooperation.

**Global exchanges are being established**

In the US, more exchanges seem to be looking for mergers or acquisitions outside the US to create “global exchanges”. As mentioned by Jean-François Theodore, NYSE Euronext is operating exchanges in six jurisdictions. Another example is Nasdaq’s acquisition of OMX to form the NASDAQ OMX Group.

**Consolidation of cash and derivatives clearing is yet to happen**

Despite consolidation of stock and derivatives exchanges increasingly occurred, we have not yet seen any consolidation of cash and derivatives clearing houses. Instead, the integration of trading and clearing in a vertical silo seems to be the preferred business model at the moment. Perhaps, derivatives clearing is considerably more
complex than securities clearing and as a result, a single clearing arrangement for both cash and derivative markets will require substantial effort. With convergence of the cash and derivative products, which I am going to elaborate next, and possible capital efficiency for market participants out of the cross-margining or cross-collateralising of cash and derivative products, we remain interested to see some possible consolidation of cash and derivatives clearing in the future.

All these developments introduce new regulatory challenges that require global efforts to resolve.

**New regulatory challenges**

*Convergence of the stock and derivatives markets*

First, as stock exchanges entered into the derivatives business by acquiring derivatives exchanges or introducing new products with derivatives features, the stock and derivatives markets have started to converge. In recent years, new hybrid products like derivative warrants\(^1\) and equity-linked structured products\(^2\) have become very popular in Hong Kong and in some major European markets like Germany, Switzerland, Italy and France. The convergence of the stock and derivatives markets calls for the harmonisation of regulatory requirements for the two markets and a consistent regulatory framework to ensure a level playing field. In the extreme, the convergence of the two markets may also call for the establishment of a single regulator for the stock and derivatives markets, who is considered to be in a better position to supervise and monitor effectively cross-market activities, detect and prevent cross-market manipulation, and establish and coordinate cross-market contingency plans.

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\(^1\) Derivatives warrants are, in essence, options mainly based on blue-chip stocks. They are issued by third party financial institutions (generally investment or commercial banks) that provide credit support to the product and are independent of the issuers of the underlying stocks. Derivatives warrants are listed on stock exchanges and traded like stocks.

\(^2\) Equity-linked structured products are short or medium term notes with payout linked to the performance of blue-chip stocks, baskets of stocks or stock indices. During the life of the structured products, the amount of interests paid depends on whether the underlying stock(s) or indices can reach the levels pre-defined by issuers. On maturity, if the price of the underlying stocks falls below the pre-determined level (i.e. strike price), holders of the structured products will not receive the principal but the underlying stocks.
Second, the merger between NYSE and Euronext has posed difficult questions about governance and regulatory oversight. The merger has sparked debate about who is to regulate the world’s first transatlantic exchange, and how. Concerns have been raised about regulators seeking to exercise their authority beyond their borders. It is important that such concerns about extra-territorial jurisdiction be addressed. Both the US Securities and Exchange Commission and Euronext regulators affirmed in Sept 2006 that joint ownership or affiliation of markets alone would not lead to regulation from one jurisdiction becoming applicable in the other and stated their shared belief in the importance of local regulation of local markets.

Separately, the UK government announced in Sept 2006 that legislation would be introduced to confer new powers on the FSA to veto rule changes proposed by exchanges that would be disproportionate in their impact on the pivotal economic role that exchanges play in the UK and EU economies in order to protect the London Stock Exchange and its listings from disproportionate overseas regulation if the UK exchange were to be taken over by a foreign company. It would outlaw the imposition of any rules that might endanger the light touch, risk-based regulatory regime that underpins London’s success. The legislative process is in progress.

With these developments and probably more emerging ones, there is risk of the national/regional regulatory frameworks developing in different directions as a result of an attempt to address the regulatory concerns arising from global exchange consolidation. The challenge is: What is the appropriate regulatory framework for consolidated and/or global exchanges?

How to deal with the new regulatory challenges?

As more stock and derivatives exchanges operate and compete globally, regulators should act together to develop a common regulatory framework for global exchanges.
Although the consolidation of exchanges calls for a certain degree of regulatory convergence both domestically (for the integration of stock and derivatives markets) and internationally (for global consolidation), the form of market evolution in each jurisdiction or region, and the structural context within which it takes place, are sufficiently different that standardised responses may not be appropriate. As regulators, we recognise that there is no single correct approach to deal with the challenges arising from the consolidation of exchanges. However, regulators should continue to explore the possibilities for greater convergence as markets become more consolidated and global. In areas where regulatory convergence is considered inappropriate, regulators should seek enhancements in regulatory cooperation. Regulators should enhance information sharing arrangements to cope with enforcement issues and market oversight of exchange operations.

**Regulatory convergence**

The development of consolidated and global exchanges presents challenges in respect of the effectiveness and efficiency of the regulatory arrangements for their oversight.

First, regulators should review their regulatory approaches to stock and derivatives markets to harmonise the regulatory requirements and have a consistent regulatory framework for the supervision of consolidated exchanges. As I mentioned before, new hybrid products like derivative warrants and equity-linked structured products are increasingly being launched for trading by exchanges. These hybrid products have both the characteristics of stocks and derivatives. Any significant difference in terms of regulations in the stock and derivatives markets would encourage the launch of these products in the market where there are lighter regulatory requirements and as a result, lesser investor protection.

Second, regulators should review their regulatory approaches to domestic and overseas exchanges to minimise regulatory arbitrage and facilitate the supervision of global exchanges. With the increasing exchange consolidation, investors would be provided
more opportunities to trade on global exchanges, possibly through a single connection to multiple markets in different jurisdictions. There are issues concerning the coordination of trading arrangements like position reporting requirements in more than one jurisdiction. Such issues are particularly crucial at times of volatile markets. There are lessons to be learned out of the NYMEX-ICE incident whereby ICE was able to benefit from the UK regulatory regime which had different requirements as regards position limits and reporting on super-large trades. We definitely do not wish to see our own regulatory regime being exploited because of different regulatory standards from abroad.

Third, regulators should strengthen the risk management standards for exchanges globally as consolidation of exchanges would increase the risk of contagion across markets in different regions. Markets today are de facto networks and a market is only as strong as its weakest link. When one market within the global network fails, there is a domino effect. This can create serious consequences for other markets and, potentially, result in a catastrophic failure event. The global markets therefore cannot be strengthened merely by individual effort.

**Regulatory cooperation**

Regulators should seek enhancements in regulatory cooperation in areas where regulatory convergence is considered inappropriate. Regulatory cooperation in terms of cross border enforcement and information sharing is very important. As markets become increasingly global, regulatory cooperation among securities regulators becomes increasingly vital.

First, there are enforcement issues with the oversight of market participants of global exchanges, such as the detection of market abuses and misbehaviour (like insider trading and market manipulation) across jurisdictions. This is important in respect of the activities of certain investors like hedge funds that may create potential cross-market impact. As I mentioned earlier, the current regulatory approach taken by some major
regulators towards the regulation of global exchanges is that joint ownership or affiliation of markets alone would not lead to regulation from one jurisdiction becoming applicable in the other and local markets would remain under the regulation of the relevant jurisdictions. This further highlights the importance of information sharing and regulatory cooperation among the regulators concerned.

Second, the existing multilateral MOU signed among major IOSCO jurisdictions facilitates information sharing for enforcement purposes only. It may not cover the information required for the day-to-day surveillance of market operations.

Third, global exchange consolidations may create uncertainties about the respective responsibilities of the home regulator and overseas regulator. Regulators need to review the existing information sharing and regulatory cooperation arrangements to see whether or not they are sufficient to cover the information required for the market oversight of global exchanges.

**Concluding remark**

As our markets develop, more regulatory challenges will arise. These challenges are global in nature and thus demand global efforts to resolve. IOSCO has issued a report in November 2006 titled “Regulatory Issues Arising from Exchange Evolution” discussing various issues resulting from exchanges’ new business models. I am sure that the issues will further evolve and new challenges will arise. Securities regulators worldwide therefore need to work together to deal with these challenges.