CONSULTATION REPORT

REGULATORY ISSUES ARISING FROM EXCHANGE EVOLUTION

TECHNICAL COMMITTEE
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS

MARCH 2006

This paper is for public consultation purposes only. It has not been approved for any other purpose by the IOSCO Technical Committee or any of its members.

Preamble

The IOSCO Technical Committee has publicly released the consultation report entitled *Regulatory Issues Arising from Exchange Evolution*. After the consultation process, the IOSCO Technical Committee Standing Committee on the Regulation of Secondary Markets (SC2) will review the comments received from the international financial community and present a final report on regulatory issues arising from exchange evolution to the IOSCO Technical Committee for consideration.

How to Submit Comments

Comments may be submitted by one of three methods **at the latest on 2 June 2006**. To help us process and review your comments more efficiently, please use only one method[1].

1. E-mail

- Send comments to Ms. Tillie Rijk: t.rijk@iosco.org
- The subject line of your message must indicate "Public Comment on *Regulatory Issues Arising from Exchange Evolution*."
- If you attach a document, indicate the software used (e.g., WordPerfect, Microsoft WORD, ASCII text, etc.) to create the attachment.
- DO NOT submit attachments as HTML, PDF, GIF, TIFF, PIF, ZIP, or EXE files.

OR

2. Facsimile Transmission

Send a facsimile transmission, to the attention of Ms. Tillie Rijk, using the following fax number: 34 (91) 555 93 68.

OR

3. Paper

Send a copy of your paper comment letter to:

Ms. Tillie Rijk
IOSCO General Secretariat
Oquendo 12
28006 Madrid
Spain

Your comment letter should indicate prominently that it is a "Public Comment on *Regulatory Issues Arising from Exchange Evolution*."

[1] ***Important:*** *All comments will be publicly made available, unless anonymity is specifically requested. Comments sent via e-mail will be posted on the IOSCO Internet Home Page. Comments sent via fax or paper will be converted to PDF format and then posted on the IOSCO Internet Home Page. Personal identifying information will not be edited from submissions.*

A. Introduction

A.1. Background and purpose

Exchanges continue to be the major operators of organised marketplaces for the trading of many financial instruments, particularly equities. Traditionally, exchanges were owned by the market participants and were responsible for the regulation of both the markets they operated and of the members themselves. They were member-owned, self-regulatory organisations in the full sense of those terms. However, in recent years, the rationale and support for continuing mutual ownership has tended to weaken and most major exchanges have now converted into for-profit companies with broader shareholder bases. For securities[2] regulatory authorities these changes in exchange ownership and business objectives have been raising significant issues. Those issues can be grouped under two main headings:

- Issues concerning the regulatory role of exchanges;
- Issues relating more broadly to the regulation of exchanges.

IOSCO Principle 26 articulates the importance of jurisdictions having appropriate supervisory arrangements to ensure that exchanges are properly run. That principle states that "there should be ongoing regulatory supervision of exchanges and trading systems which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants".[3] In addition, IOSCO Principle 7 refers to self-regulatory organizations (SROs)[4] and provides that "SROs should be subject to oversight of the regulator and should observe standards of fairness and confidentiality when exercising powers and responsibilities".

The IOSCO Technical Committee (TC) first responded to the growing interest among exchanges in moving away from mutual ownership in the "Issues Paper on Exchange Demutualization" (2001 paper), published in June 2001. That report reviewed the regulatory issues that could arise following the demutualization of exchanges and their conversion into for-profit entities and concluded that:

- the challenges facing exchange regulators may be heightened when an exchange, operating in a competitive marketplace, decides to restructure its operations as a for-profit entity;
- in practice, regulatory responses to such restructuring vary according to circumstances, and there is no universal right regulatory path to follow; and

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[2] The term "securities" should be understood to include derivatives where the context permits.

[3] IOSCO Objectives and Principles of Securities Regulation (May 2003).

[4] It is stated in IOSCO, *Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation* (October 2003) that: "An organization should be classified as an SRO ... if it has been given the power or responsibility to regulate any part of the securities market or industry".

- given the importance of an exchange in the financial and economic system of a country, the issues arising on conversion to for-profit status would continue to demand regulatory attention.

Since publication of the 2001 paper, the trend for exchanges to demutualize and, in many cases, obtain stock exchange listings has continued. By the end of 2005, 16 exchanges or holding companies for an exchange group operating in SC2 jurisdictions had obtained public listings. If the proposed merger between the New York Stock Exchange (NYSE) and Archipelago Holdings, Inc. (Archipelago) is completed, demutualized exchanges will have become the dominant providers of securities markets globally.[5] The trend among derivative exchanges is similar. The table below indicates that the business of exchange operation – which, in some cases, includes related activities such as clearing and settlement – is one on which investors place significant value.

Table 1: Listed Exchange/Exchange Operators

Listing date	Listed exchange/ exchange operator	Market value (US$m. equivalent 31.12.05)
Mar. 1987	OMX Group	1,645
Oct. 1998	ASX	2,407
June 2000	HKEx	4,407
Nov. 2000	Singapore Exchange	1,803
Feb. 2001	Deutsche Boerse	11,028
July 2001	Euronext NV	5,879
July 2001	London Stock Exchange	2,710
April 2002	Sydney Futures Exchange	1,315
Nov. 2002	TSX Group	2,745
Dec. 2002	Chicago Mercantile Exchange	12,651
April 2004	Osaka Securities Exchange	560
August 2004	Archipelago[6]	2,365
Mar. 2005	International Securities Exchange	1,030
Mar. 2005	Bursa Malaysia	497
Oct. 2005	CBOT Holdings Inc.	4,951
Nov. 2005	InterContinental Exchange	2,015

Now that regulatory authorities have more experience in addressing the issues raised by demutualization, the TC considered it timely to revisit the topic. On this occasion, recognizing that demutualization per se is only one aspect of the changing environment for exchange operation, it requested its Standing Committee on the Regulation of Secondary

[5] On November 3, 2005, the NYSE submitted to the U.S. Securities and Exchange Commission (SEC) a proposed rule filing, in connection with a proposed merger with Archipelago, the ultimate holding company of the Pacific Exchange (PCX). As a result, the business of the NYSE and Archipelago would be held under a single publicly-traded holding company named NYSE Group, Inc. PCX also filed with the SEC, on December 5, 2005, a proposed rule change related to the proposed merger. These filings have been published for comment. In addition, the NYSE Group filed a registration statement with the SEC containing a joint proxy statement/prospectus regarding the proposed transaction. The SEC declared the Registration Statement effective on November 3, 2005.

See, http://www.nyse.com/pdfs/NYSE-2005-77coverpagesMERGER.pdf.

[6] When Archipelago was listed on the Pacific Exchange in August 2004, it did not own the Pacific Exchange. Its acquisition of the Pacific Exchange closed in September 2005.

Markets (SC2) to consider any additional issues pertinent to exchange regulation that have followed or accompanied the move to for-profit operation. *These issues, many of which are still only emerging, flow largely from the ways in which for-profit exchanges seek to enhance shareholder value and all exchanges, whether or not demutualized, are now operating in a more competitive market services environment.*

This report complements the report entitled “Exchange Demutualization in Emerging Markets”, prepared by the Emerging Markets Committee of IOSCO and published in April, 2005. That report provides a perspective on how the issues raised by demutualization may vary according to the state of development of a market and the specific environment within which the exchange operates. A particular feature of that report was the view of some regulators that demutualization was not the only way in which to stimulate the development of exchange-operated markets in developing countries, and not necessarily the most desirable. The report also noted that the impact of demutualization on the regulatory role and arrangements for demutualized exchanges is quite substantial. The report noted that possible approaches to address the potential conflict between the commercial interests and regulatory obligations of an exchange include reducing the regulatory obligations of the exchange by transferring the regulatory functions to the regulator, an independent entity, or an industry SRO.

A.2. Research

The report has been prepared with the assistance of substantial research by SC2 members in their jurisdictions.[7] A detailed questionnaire was completed describing the relevant exchange structure(s), ownership and business model(s), regulatory issues raised and information about exchange linkages and clearing and settlement arrangements.

The report has also benefited from assistance from the IOSCO SRO Consultative Committee. A number of Consultative Committee members have supplied information relating to exchanges' motivations for demutualization, the issues raised and how they had been addressed.[8] The responses[9] provide insights into the reasons why an exchange may consider demutualization and any particular measures it may take to address conflicts of interest. Some of the responses acknowledge the conflicts of interest that are inherent with self-regulation, and some suggest that a number of conflicts of interest may be reduced with demutualization.

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[7] The jurisdictions of SC2 members are Australia, Brazil, Canada (Ontario and Quebec), France, Germany, Hong Kong, India, Italy, Japan, Malaysia, Mexico, Singapore, Spain, Switzerland, United Kingdom, United States of America (CFTC and SEC).

[8] SC2 invited the SRO Consultative Committee members to comment on the following: whether the exchange had considered moving (or had already converted) from a mutual to a demutualized entity and the key factors behind this move; the measures considered to resolve/manage potential conflicts of interest; views regarding the self-regulatory role of a demutualized exchange; and the key emerging issues arising from demutualization.

[9] The following SRO Consultative Committee members provided responses: Amman Stock Exchange, Bursa Malaysia, Chicago Board of Trade, Deutsche Borse Group, Istanbul Stock Exchange, Japan Securities Dealers Association, Korea Stock Exchange, Luxembourg Stock Exchange, National Futures Exchange, Shenzhen Stock Exchange, Sydney Futures Exchange, SWX Group, Taiwan Stock Exchange Corp., Tokyo Stock Exchange Inc. and the Warsaw Stock Exchange.

A.3. Structure

The structure of the report is as follows:

- Section B describes the regulatory role of exchanges and the issues raised for that role by demutualization and the conversion to for-profit business models in combination with the competitive environment existing around them.
- Section C describes the various ways in which securities regulatory authorities have addressed these issues.
- Section D discusses broader issues arising from exchanges' new business models.
- Section E sets out the report's conclusions and recommendations.

B. Implications of changing environment for exchanges' regulatory role

In most of the jurisdictions of SC2 members, exchanges are key market infrastructure entities. Most jurisdictions regard the proper functioning of their exchanges as critical to the efficient operation of their capital markets. They therefore see a strong public interest in exchanges operating their markets in a way that promotes market efficiency and commands market confidence. The 2001 paper described the public interest role of exchanges as follows:

> The fair and efficient functioning of an exchange is of significant benefit to the public. The efficiency of the secondary market in providing liquidity and accurate price discovery facilitates efficient raising of capital for commercial enterprises, benefiting both the wider corporate sector and the economy as a whole. The failure of an exchange to perform its regulatory functions properly will have a similarly wide impact.

B.1. Roles of an exchange

Exchanges have traditionally performed important roles as regulators, making and enforcing rules for a range of market activities. Exchanges' core areas of regulation include rule-making in respect of members/participants, the products admitted to trading and the trading itself. Some exchanges also have regulatory or quasi-regulatory functions in respect of a number of other market services, including clearing and settlement.

As market operators, a core function of exchanges – and often an important part of their branding – is the creation and enforcement of the rules governing the markets they operate. The scope of exchange rule-making and enforcement activity varies considerably, but most exchanges are rule-setters at least in respect of the admission of members, the admission of products to trading and the trading process itself. The full range of these responsibilities is set out below.

(a) Member Regulation

The first main element of the member regulation function, and one which is common to all exchanges, is the setting of the eligibility rules for the admission of members/participants.

A second element of member regulation, which exchanges in some countries still perform, is the comprehensive regulation of member firms. This generally covers the regulation of sales practices and prudential requirements, but may also include setting qualification standards for industry professionals. In countries where this comprehensive regulation of investment firms is undertaken by other regulatory bodies, exchanges normally rely on that regulation and focus their own member regulation on areas relating specifically to the behaviours and systems capabilities needed to participate in the exchange's trading processes.

(b) Product regulation/ listing

The second key area of responsibility for exchanges is determining what instruments to admit to trading and the basis on which to admit them. In some cases, exchanges still have considerable responsibility for setting standards for the listing/admission to trading of securities and for the imposition and enforcement of ongoing (mainly disclosure) requirements on issuers. Derivative exchanges are responsible for designing the products that are traded on their marketplaces. However, in other cases exchange admission rules and processes add little to the rules and processes established by a statutory listing authority.

(c) Trading regulation

The regulation of trading, with a view to ensuring fair, orderly and efficient trading, is normally the core responsibility of all exchanges. The trading (or "market") regulation function generally includes:

- setting trading rules;
- conducting trading surveillance to ensure orderly markets and detect potential market abuse;
- enforcing trading rules and taking disciplinary action against participants in breach of the rules; and
- informing the securities regulatory authority of infractions, where appropriate.

(d) Other functions

An exchange may provide certain services beyond traditional trading services for which it may in some cases act as rule-setter or in a quasi-regulatory role. Although this may be the case whether or not an exchange is demutualized, often the change to a for-profit structure is a motivating factor behind an exchange's focus on developing non-trading services. These services may include, for example, transfer agency, custodian, clearing and settlement, shareholder registry and data distribution services.

B.2. Key issues raised by the changing environment

The move by many exchanges to a for-profit business model, together with increased competition in the provision of market services in most markets, raises a number of questions about the appropriate regulatory role of exchanges. These issues run from the compatibility of for-profit operation with public interest objectives to the adequacy and

efficiency of regulation.

Exchanges' new business models and the competitive environment in which they operate have inevitably raised questions as to whether the role that exchanges play as setters and enforcers of rules may need to be modified. The 2001 paper identified four key issues that regulatory authorities should consider in the context of demutualization. All remain central to any consideration of the potential impact of the changing environment on exchanges' regulatory roles. They were:

- Risks to the maintenance of a proper balance between an exchange's public interest obligations and its commercial interests;
- The potential misuse of regulatory powers for commercial purposes;
- Potential threats to the ongoing financial viability of an exchange;
- Conflicts of interest due to self-listing.

Below, these issues are further discussed. We also consider the possible impact of the more competitive, and potentially more fragmented and more complex, market environment on the ability of exchanges to regulate markets efficiently.

(a) Balancing commercial and public interest functions

The central issue discussed in the 2001 paper is the need to ensure that a for-profit exchange maintains a proper balance between its commercial interests and its public interest obligations. Concerns have sometimes been voiced that the commercial pressures to maximise profits are likely to lead to a “race to the bottom” in exchanges' regulatory standards. Although this balance between the commercial interests of an exchange and the public interest is also relevant to mutual exchanges – where the commercial interests of the mutual members may conflict with broader market interests – there is a view that the risk of imbalance may be greater in a for-profit entity. This is in part because for-profit exchanges focus on earnings growth, ideally year-on-year, and the avoidance of profit declines. But it is also because their management and widened shareholder base may be less attuned to, and less interested in, broader market interests. Consequently, they may fail to provide adequately for the recognition and/or representation of those interests in the exchange's decision-making processes.

The risk of imbalance lies principally in two areas. The first, as indicated above, is that the for-profit exchange may be tempted to lower standards to try to generate additional revenue. For instance, it might reduce the eligibility requirements for issuers in order to attract new listings. It should be noted, however, that mutual exchanges seeking to increase trading opportunities for their members can also face pressures to lower their listing standards.

The second potential cause for concern is that for-profit exchanges may reduce the resources they devote to regulation. Worse, they may place insufficient value on the regulatory process, fail to sustain a strong regulatory culture and be less willing to co-operate with their supervisory authorities and other regulatory bodies. Any evidence of these latter elements would clearly be a cause for considerable concern. However, purely in terms of resources, regulators need to distinguish between cuts in regulatory budgets that increase the risk of a regulatory failure and cost reductions that an exchange achieves by increasing efficiency, e.g., by upgrading monitoring technology or by outsourcing. (See, page 25.)

Overall, the central risk in respect of the public interest, equally applicable to both for-profit shareholder-owned exchanges and mutually-owned exchanges, is the extent to which the exchange's short term commercial objectives are likely to overshadow its incentive to preserve its long-term reputational capital as a provider of fair and orderly markets that command investor confidence. The managements of most for-profit exchanges do not regard this as a serious risk. They argue that their incentive to deliver high regulatory standards is, if anything, increased as for-profit companies: they have much to lose, especially in a competitive environment, if participants lose confidence in the protections that exchange trading offers them. This was the view of the 15 Consultative Committee members who responded to our questions. Some recognised that there could be a conflict between a for-profit exchange's short-term and longer term commercial interests, but they believed that exchanges were cognizant of the commercial consequences of compromising high regulatory standards. Several indicated that they considered the conflict as more acute in mutual organisations than listed companies.

In extreme cases, the issue may not be one of a potentially ongoing conflict between an exchange's commercial interests and its regulatory obligations: the exchange may simply decide that it no longer makes commercial sense for it to continue certain regulatory functions. This is most likely to occur when at least one of the following factors is present: official prohibition on the function being operated on a for-profit basis; tight regulation of permitted charges; and a perception on the part of the exchange that the regulatory function in question adds little or no value to the exchange's commercial branding. To date most transfers of regulatory responsibility have occurred on the initiative of governments or regulatory authorities, but these transfers have not been strongly opposed by the exchanges.

(b) Misuse of regulatory powers

A second key consideration in evaluating exchanges' ongoing regulatory roles is the extent to which they may be able to misuse that role for commercial benefit, particularly where they are subject to little competition or there are already high barriers to entry. The 2001 paper recognized that this could also occur with mutual exchanges but considered that the conflicts of interest that may bring this about are more likely to occur in a for-profit exchange. There are two main ways in which an exchange might misuse its position: 1) by taking regulatory actions that unreasonably disadvantage its competitors; or 2) by using its powers to generate regulatory income to finance its commercial operations. These are explored in more detail below. In either case, one of the mechanisms for such misuse may be implicit in the fee structure. Although regulatory authorities generally do not regulate fee structure, it is important that fees are fair and are not operating as a barrier to access.[10]

i) Regulation of competitors

An intrinsic feature of greater competition in the business of exchanges (and all trade execution services) is that an exchange may increasingly be placed in the position of regulating its competitors. These might include market participants who provide, use or have invested in competing forms of market services. An exchange could be regulating them either as market participants or as listed companies.

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[10] The Hong Kong SFC has a statutory power to regulate the fees charged by the exchanges as a result of the demutualization.

The 2001 paper stated that conflicts arising from the regulation of competitors could manifest themselves in a number of ways. Measures promoted in the name of high regulatory standards – for instance, in relation to access, trading or listing requirements – might also be designed with a view to restricting competition. Similarly, disciplinary proceedings and sanctions might be used in a discriminatory manner likely to disadvantage competitors.

While it is possible to over-state these risks, an exchange's regulatory position may, at the least, provide it with insights into its competitors' business that it would not otherwise enjoy. Addressing this last issue is not straightforward. In any regulatory area, an exchange should normally have arrangements to isolate regulatory information from commercial influence. For example, when an exchange admits/lists the securities of its commercial competitors, it is important that the exchange's processes operate in a manner that treats all issuers equally and that confidential information held by the admissions/listing department is not passed to the exchange's commercial arm.

ii) Uses of regulatory income

A further way in which a for-profit exchange could abuse its regulatory position would be for it to generate surplus revenues from its regulatory activities that it could then use for commercial purposes. This too is a potentially complex issue, in terms both of market integrity and its potential to distort competition. What comprises regulatory income may not always be either discrete or obvious. There is then the question of what may constitute appropriate uses for regulatory income.

Clearly, regulatory income is readily identifiable in the case of penalty/fine income. It may also be identifiable when an exchange has a specific role in providing general regulatory oversight of member firms and those firms pay a specified fee for that service. Beyond that, it may be more difficult to break out income that might arise from a regulatory function. For instance, trading and transaction reporting fees may cover both the commercial service provided in respect of trading as well as any regulatory aspects of the service, such as market monitoring.

To the extent that a particular function is viewed as being regulatory in nature, with a for-profit entity regulators will need to consider whether or not regulatory intervention to approve or control fees and charges is appropriate.

(c) Financial risk and exchange viability

The ongoing financial health of an exchange is generally considered important to a jurisdiction's capital markets. It is especially important in situations where an exchange is a country's sole capital market utility, has an extensive regulatory remit and is the main repository of regulatory expertise. Even where that is not the case and the business of a faltering exchange could be transferred to other venues without huge disruption, it is still important that an exchange should be in a position to manage an orderly run-down/transfer of its business without causing investor losses or market disturbance.

Again, this is not an issue solely for a demutualized exchange. However, it is likely to be a more significant issue with for-profit exchanges. This is for two reasons. First, a for-profit exchange may, hypothetically, be more inclined to take greater commercial risks than a mutual (which may also raise the question as to the extent of the regulatory role that such

entities should hold). Even if it does not, it may still wish to enhance returns to shareholders by returning cash to shareholders either through dividend payment and/or share buy-back thus reducing its capital base. Second, a for-profit exchange might, in extremis, find it more difficult than a mutual to raise emergency funding. While all exchanges have the option of raising fees to meet a financial shortfall, and a demutualized exchange can always raise capital so long as there are willing investors, many mutual exchanges have a right to assess members and levy a capital contribution.

(d) Conflicts due to self-listing

One of the clearest issues relating to a demutualized exchange's regulatory role is the conflict of interest created when it self-lists. A major potential benefit of exchanges demutualizing is to open their access to a greater pool of capital. This can provide the existing owners – the exchange members – with the opportunity to realise the value of their holdings in the exchange as a business. It also enables the exchange itself to attract new capital from a broader range of investors. Most of the exchanges that have restructured have, either immediately or within a relatively short time, sought a listing for their shares. In almost every case, the listing has been sought on the exchange's own market. (See Table 1: Listed Exchange/Exchange Operators at page 3.)

The key issue when an exchange self-lists is whether it can function effectively as its own regulator. In particular, is it appropriate for the exchange to review and approve its listing documents or those of its parent? Once the shares have started trading, can it credibly act as its own regulator (or that of its parent) if there is a breach of the listing rules? The extent of the risk posed by this conflict of interest depends on an exchange's role and responsibilities in the listing process. However, even where the listing function is the responsibility of an entity other than the exchange, the exchange may in some cases continue to act as the front-line monitor of the trading in its own shares.

(e) Regulatory efficiency

One of the less predictable consequences of the more competitive, for-profit environment in which exchanges are increasingly operating is its implications for an exchange's role as market regulator if there is market fragmentation. A further significant issue for many jurisdictions will be the continuing ability of any single exchange to carry out certain regulatory roles efficiently. Issues may well arise in relation to both the freedom of the exchange to set competitive regulatory standards (e.g. in relation to listing or transparency) or to monitor the whole of the market in any one instrument.

C. Regulatory responses to exchange evolution

No regulatory authority in a jurisdiction of SC2 members has so far opposed or prevented their exchanges from demutualizing and converting to for-profit operation. However, although regulatory authorities have generally recognised that competition among market operators should offer market users efficiency benefits, most have also taken the view that the change in the business model, and the more competitive environment in general, can create a number of risks (as described in the previous section) in respect of the specific regulatory roles that exchanges perform in their jurisdictions.

The nature and scale of those risks can vary considerably. Much depends on the overall market structure in a jurisdiction and the way that its regulatory framework has evolved. Although many exchanges originally enjoyed considerable freedom in the way that they regulated as member-owned, self-regulatory organizations, most jurisdictions were progressively increasing the scope of statutory regulation well before the transition to the new exchange business model gathered pace. While this was sometimes in response to specific weaknesses identified in the self-regulatory system, it also reflected governmental recognition of the importance of exchanges in the capital markets – especially in equity markets – and the consequent public interest in exchanges' sound operation and ongoing viability.

Jurisdictions have differed in the degree to which they have circumscribed exchanges' freedom to set their own standards. Some jurisdictions have confined themselves to requiring that exchanges be licensed and meet general requirements to provide efficient markets and investor protection. In other cases, legislators and securities regulatory authorities have specified, in some detail, what they consider to be the key factors in the delivery of efficiency and fairness. Often, they have also imposed much tighter constraints on the freedoms of exchanges as rule-makers and enforcers by establishing market-wide rules and requiring exchanges to have all rule changes approved by the securities regulatory authority. Where this occurred before demutualization arrived, it probably lessened considerably the potential regulatory concerns with demutualization. Nonetheless, most jurisdictions have taken further steps, either through modified regulation or enhanced oversight (or both), to ensure that exchanges continue to fulfil their roles in a manner consistent with public interest objectives. This section sets out the various tools they have used.

Most approaches involve one or more of the following:

- governance arrangements;
- separation of functions within an exchange;
- restrictions on ownership;
- oversight arrangements (including arrangements to deal with self-listing);
- transfer/removal of functions.

Securities regulatory authorities have paid particular attention in their approach to an exchange's self-listing to deal with the particular conflicts and issues that arise in that instance.

C.1. Governance arrangements

Most regulators have focused on governance arrangements as the primary means of ensuring that exchanges have robust arrangements for maintaining a proper balance between the exchange's commercial interests and its regulatory responsibilities.

A primary focus for SC2 members in seeking to ensure that an exchange's decision-making and operational processes pay proper regard to, and protect, the public interest has been to require appropriate corporate governance arrangements. The overall aim is to ensure that the governing body includes individuals directly representing the broader public interest or who

at least have the independence to consider whether the exchange is giving due weight to its regulatory responsibilities.

Many jurisdictions of SC2 members have requirements for exchanges to have "public" or "independent" directors (or both).[11] In some cases, the requirement pre-dates demutualization, having usually evolved to deal with the conflicts that may be inherent in self-regulation (e.g. Germany, India, Mexico, the UK, the USA). In other cases, SC2 regulators have introduced, or developed, requirements to address the new issues presented by demutualization (e.g. Canada, Hong Kong) or the new requirements have been driven mainly, or additionally, by the standards (or best practices) for listed companies generally (e.g. Canada, the UK, the USA).

The terms "independent directors" and "public directors" can carry significantly different meanings in different jurisdictions. More importantly, the legally-defined roles may also differ significantly. In some instances, these directors may have a responsibility for safeguarding the public and/or user interest in relation to the way in which the exchange conducts its regulatory functions. In other cases, the directors do not directly represent specific shareholding interests but nonetheless are elected by the shareholders and owe them the same fiduciary duty as the other directors. Such directors are often chosen from other stakeholder interests (e.g. listed companies) or because they have particular business or regulatory expertise.

In some jurisdictions of SC2 members, although there may be no definition of "independent" and/or "public" directors, there may be requirements that are relevant. For example, in Brazil, the stock exchanges must have two "independent" directors – one representing listed companies and one representing individual investors; however, there is no definition of "independent". In Switzerland and Italy, there is a "fit and proper requirement" for exchange directors, while in the UK the regulatory authority may have regard to both individual board members and the governing body as a whole in determining whether the exchange is a fit and proper person. In India, the Securities Law (Amendment) Ordinance, 2004 provides that the maximum number of broker representatives shall be restricted to 25% of the governing board. Of the remaining, 25% are appointed as public interest directors by the Securities and Exchange Board of India and 50% are elected by shareholders. In Spain, although there is no requirement for "independent" and/or "public" directors, there is a requirement for the boards of exchanges to be composed of at least five persons, with one general director (whose duties are defined by the by-laws of the exchange). On implementation of the Markets in Financial Instruments Directive in the EU (in November 2007), all EU exchanges operating Regulated Markets will be required to have arrangements – implicitly, governance arrangements – to identify and manage the potential adverse consequences of any conflict of interest between the regulated market, its owners or its operators and the sound functioning of the market.

A further governance issue for regulators is the arrangements when an exchange becomes the subsidiary of (or controlled by) a third party. An important principle in the regulatory approach to exchanges is normally that the governing body of an exchange should exist and operate in its own right (i.e. not simply in a nominal capacity implementing decisions taken elsewhere). On the other hand, a holding or parent company may consider it more efficient to

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[11] In some jurisdictions, there may be a distinction between "independent" and "public" directors. For example, "independent" may mean not related to the exchange or its shareholders and "public" may mean non-industry, or the requirement for "independent" directors may be applicable to all listed companies, while the requirement for "public" directors may be specific to an exchange.

centralise the executive management of the exchanges it owns (or controls). It may wish to minimise the size and role of the executive boards in each exchange and appoint boards that simply mirror the group executive. In parallel, it may see little value in the exchange subsidiary having independent or public interest representatives on its board. This may be sound commercial logic from the viewpoint of the controlling company. However, regulators need to assess whether this type of arrangement presents risks to good governance and delivers sufficient accountability. Currently, the number of foreign-owned subsidiary exchanges is relatively small, but in the UK where several exchanges are foreign-owned or controlled, the supervisory approach is to require independent governance of the UK exchange in much the same way as if it were a publicly-owned exchange.

C.2. Separation of functions within an exchange

An important element in ensuring that an exchange's regulatory responsibilities are not compromised by its commercial interests is the maintenance of organisational arrangements that place divisions between the commercial and regulatory functions.

A second key aspect of governance arrangements is the way in which the regulatory function fits within an exchange's organisational structure. In general, it has been perceived as increasingly important that the regulatory function should be organised in a way that permits it to operate with as much independence as possible from the commercial interests of the management and shareholders. This normally involves some form of organisational containment of the regulatory department(s), but may also provide for specific arrangements regarding the appointment (and dismissal) of heads of regulation, regulatory oversight or audit by the independent or public directors, and/or the possibility of the head of regulation reporting concerns to the independent or public directors.

The specific arrangements may vary, but their general intent is the same. At some for-profit exchanges, separation of the commercial activities of the exchange from its regulatory functions has been achieved by establishing separate regulatory divisions that have no involvement in the commercial or business activities of the exchange. In some cases, these regulatory divisions report separately, and directly, to the CEO and Board. For example, the ASX has announced that it will move its market supervision functions into a separate subsidiary headed by a Chief Supervision Officer (CSO). The CSO will report directly to the subsidiary board and the board of the ASX. In Canada, the Bourse de Montréal has established a Special Regulatory Division that is responsible for the regulatory functions and reports to an independent committee of the Board, the Special Regulatory Committee. In France the regulatory functions at Euronext are located in the “Legal Regulatory Compliance Department”, which directly reports to the Board. In Italy, the exchange has established and maintains organizational arrangements to prevent conflicts of interest. In particular, it ensures that the persons responsible for certain departments have complete autonomy in carrying out examinations and putting forward proposals.

Because of the importance placed on the effective performance of regulatory functions by exchanges, some exchanges have also considered the separation of their commercial and regulatory functions while still operating as not-for-profit organizations. For example, the NYSE, even before its announced intent to merge with Archipelago, reorganised its governance. It appointed a Chief Regulatory Officer responsible for the day-to-day

management of the exchange's regulatory functions who reports directly to the Regulatory Oversight Committee of the Board.

C.3. Restrictions on ownership

Most SC2 members have not placed restrictions on any specific type of ownership of exchanges. However, many have various powers in respect of controlling or influential shareholders, ranging from notification, to fit and proper approval requirements.

A further potential option for addressing concerns over governance is to impose requirements or restrictions on the shareholders themselves. While exchanges remain mutual, the market participants who own the exchange have at least some common interest in high regulatory standards and are nearly always investment firms subject to regulation. Once demutualized, an exchange could fall under the control, or influence, of 'inappropriate' shareholders. (Some jurisdictions may also have a more general concern about allowing a key part of the capital market infrastructure to become foreign-owned, or at least without some form of prior approval.)

There have been three main ways of approaching non-mutual ownership to date:

- placing specific eligibility requirements on substantial or controlling shareholders (e.g. fit and proper requirements);
- imposing regulatory notification and/or public disclosure requirements when shareholdings (or the percentage of shares controlled) exceed certain thresholds; and/or
- placing restrictions on the permitted size of shareholdings, with or without discretion to approve higher levels.

Many jurisdictions of SC2 members use one or more of the above. For instance, the UK requirement for an exchange to be a fit and proper person extends to its controllers, while shareholders in a listed exchange must comply with listed company rules requiring notification and disclosure of shareholding of 3% or more. In most jurisdictions of SC2 members, the shareholder restrictions have been imposed specifically for exchanges (and are not a requirement for all listed issuers). The requirements may be imposed by the regulator or may be required by legislation. For example, in Singapore, legislation provides that a person shall notify and obtain the approval of the securities regulatory authority before acquiring a substantial shareholding (defined to be 5% or more of the voting shares) in an exchange. In addition, a person must obtain prior approval before becoming a 12% controller or 20% controller of an exchange. The restrictions are intended to allow the securities regulatory authority to be satisfied that the shareholders owning more than 5% are fit and proper persons, that the exchange will continue to conduct its business prudently and in compliance with its statutory obligations and that it would not be contrary to the interests of the public to have such persons as shareholders. From November 2007, the Markets in Financial Instruments Directive in the EU will require Member States to require persons who are in a position to exercise, directly or indirectly, significant influence over the management of a Regulated Market to be suitable. Member States will be required to refuse to approve proposed changes to controlling interests where there are grounds for believing that the

change would pose a threat to the sound and prudent management of the market. Currently, in Italy, although the law does not prescribe any restrictions as to the type of ownership of exchange operators, there are general integrity requirements imposed in legislation.

In Hong Kong, the shareholder restrictions are imposed by statute and provide that no person can become a minority controller (designated as a person that is entitled to exercise or control the exercise of 5% or more of the voting power) of the exchange without the prior approval of the securities regulatory authority. In Australia, there is an obligation on the licensee, or its holding company, to take reasonable steps to ensure that a person does not hold more than 15% (or a higher amount approved by the Minister) of the voting power in the licensee or its holding company. There is also an obligation to take reasonable steps to ensure that no disqualified individual becomes or remains involved in the licensee.

In Canada, shareholder restrictions are imposed on exchanges either by legislation or by the regulator. For the TSX, the shareholder restriction is imposed by legislation and provides that, without the approval of the securities regulatory authority, no person or company and no combination of persons or companies acting jointly shall beneficially own or exercise control or direction over more than 10%. For the Bourse de Montréal, the shareholder restriction is imposed by the Autorité des marches financiers and provides that no person, including persons associated with that person, shall be allowed to hold, own or exercise control, either directly or indirectly, over more than 10% of any class or any series of voting shares of the Bourse.

Most jurisdictions of SC2 members do not require or prohibit any specific type of ownership of an exchange. However, in Mexico, legislation prohibits certain individuals from participating as shareholders of an exchange (for example, foreign investors that have government powers). India prohibits any foreigner from acquiring shares in an exchange.

See Table 2 below for further information about shareholder restrictions in the jurisdictions of SC2 members.

Table 2: Shareholder Restrictions

Country	Exchange/ Exchange Operator	Shareholder disclosure requirement*	Shareholder ownership restriction	Notification/ disclosure of change in ownership*
Australia	SFE	5%	15%	Written notice when a person has, or ceases to have, 15%.
	ASX	5%	15%	Written notice when a person has, or ceases to have, 15%.
Canada	TSX Group	5%	10%	Notice and approval by regulator to own more than 10%.
	Bourse de Montréal	The Bourse shall submit to the AMF a list of its shareholders on a semi-annual basis	10%	The Bourse shall inform the AMF immediately if it becomes aware that any person owns or exercises control, either directly or indirectly, over more than 10% of any class or series of voting shares of the Bourse and shall take the necessary steps to immediately remedy the situation.

France	Euronext Paris Additional requirements apply under Dutch law to EuronextNV, the Dutch holding company listed on Euronext Paris.	10%	Fitness and propriety	Disclosure to regulator when thresholds reached.
Germany	Deutsche Borse	5% (first threshold)	10%	After notification of thresholds, regulator has discretion to prohibit acquisition.
Hong Kong	HKEx	5%	5%	Disclose where increase or decrease is across a whole percentage (e.g. 6%, 7%, etc.).
India	BSE Limited	More than 5%	5%	Persons acting in concert cannot hold more than 15%.
Italy	Borsa Italiana	5%	fitness and propriety requirements	Notification to regulator of 5% threshold reached
Japan	TSE, OSE, NSE	5%	50%	Person who retains shares in excess of 20% require approval of regulator; notification if 5% ownership.
Malaysia	Bursa Malaysia	5%	5%	Approval by Minister of Finance to own 5% or more.
Mexico	Mexican Stock Exchange	10%	10%; foreign investors that have government powers; or individuals that directly or indirectly possess more than 10% of a financial institutions equity.	N/A
Singapore	SGX	5%	5%	A substantial shareholder (5%) must advise the listed entity and the exchange of change in percentage or it ceases to be a substantial shareholder.
Spain	BME	5% (first threshold)	5% (significant shareholding)	Notified at certain thresholds above 5%.
U.K.	All listed exchanges	3% (and additional 1% increments)	Not required by law. Restrictions would be likely to contravene UK listing rules.	Notification of all changes affecting governance.
USA	CHX, ISE, PCX and Phlx	A shareholder of an exchange	Not required by law but each	A shareholder must update notice to the exchange after any

		must notify the exchange of ownership of 5% or more. If the exchange is a publicly-traded company, a shareholder that owns more than 5% of any class of equity securities must file a disclosure report with the U.S. Securities and Exchange Commission pursuant to Section 13(d) of the Exchange Act.	exchange has imposed a 20% ownership limitation for exchange members and a 40% ownership limitation for all other shareholders. The exchanges also have imposed a 20% voting limitation.	ownership change, other than a change of less than 1%, except if cross the 20% or 40% thresholds. If the exchange is a publicly-traded company, shareholders also must file amendments to initial disclosure reports filed with the Commission under Section 13(d) of the Exchange Act.[12]

*** Please note that, in some jurisdictions, the disclosure requirements may not be specific to exchanges but may apply generally to all listed companies.**

C.4. Oversight arrangements

In general, regulators have intensified their oversight of for-profit exchanges and taken greater interest in areas such as financial resources. All have required special oversight arrangements in respect of self-listed exchanges.

An important part of the regulatory response has been the establishment of additional oversight arrangements. Depending on the issue to be addressed, these often include one or more of the following:

- increased oversight by the securities regulatory authority;
- special oversight arrangements (including arrangements to deal with self-listing);

[12] If the exchange is a publicly-traded company, the rules and regulations of the U.S. Securities and Exchange Commission require a shareholder of the exchange who owns more than 5% of a class of equity security to promptly file with the U.S. Securities and Exchange Commission notice of any material increase or decrease in the percentage of the class beneficially owned, unless at the time of the initial filing the shareholder satisfied certain passive investor requirements, in which case the shareholder only would need to file with the U.S. Securities and Exchange Commission annually (unless such shareholder's ownership increases to more than 10% of the class of securities outstanding).

- specific terms and conditions added to an exchange's authorization.

a) Increased oversight by securities regulatory authority

One response by securities regulatory authorities to address issues raised by new ownership and business structures has been to increase the level of regulatory oversight of exchanges. For example, some jurisdictions of SC2 members noted that, as part of their on-site reviews of an exchange, they now assess whether the exchange has sufficient resources to carry out its regulatory functions effectively (Canada, Malaysia, Singapore). As part of the general oversight of an exchange, many jurisdictions of SC2 members require an annual regulatory report to be completed (Australia, Canada, France, Italy, Malaysia, Singapore, Spain). In France, the head of compliance and the persons responsible for trading surveillance and member regulation are each required to complete an annual report. [13]

b) Special oversight arrangements to deal with self-listing

To address the potential conflicts of interest arising for a self-listing exchange, many regulators have established special oversight arrangements. Some of these arrangements have also covered the listing or oversight of trading activity of companies that could be considered to be competitors of an exchange.

The approach favoured by many regulators in respect of initial listing has been to remove the exchange entirely from any decision-making role in its own listing process. Instead, the regulator has normally taken on that role. (See, for example, Australia, Canada, Hong Kong, Japan, Malaysia, Singapore.) In the USA, the Pacific Exchange and NASDAQ have adopted rules that require each to provide the SEC with: 1) periodic reports of its surveillance of the listing and trading of its own or any affiliate's securities on its market, and 2) notice of any non-compliance by such security with any listing standard. In addition, the rules of the Pacific Exchange and NASDAQ require an independent accounting firm to review, once each year, the listing standards for such security, to confirm that such security was in compliance with the listing standards. The New York Stock Exchange has proposed a similar rule in connection with its proposed merger.

With respect to ongoing listing requirements, regulators have adopted different approaches. In some jurisdictions, the regulator is responsible for monitoring the ongoing compliance of the self-listed exchange with listing rules (Australia, Malaysia, Singapore). In Hong Kong, where the regulator has all regulatory powers and functions with respect to ongoing listing procedures for the self-listed exchange, the exchange has power to proceed in a matter if the regulator has stated that a conflict of interest will not arise if a particular action or decision were to be taken. In Canada, a conflicts committee has been established to review any matter regarding a conflict of interest or potential conflict of interest relating to the continued listing of the exchange. Any recommendation of the conflicts committee is sent to the regulator for approval.

The last main operational area where there is potential for conflicts of interest is with respect to the oversight of trading in the securities of the listed exchange. In Australia, Malaysia and

[13] These three persons are required to hold a professional licence, which is issued by the AMF on application by the exchange.

Singapore, the regulator is responsible for the oversight of trading of the exchange's own listed securities. This includes monitoring compliance with the information disclosure provisions of the exchange rules as well as identifying and evaluating abnormal trading patterns. In Canada, since the independent market regulator (Market Regulation Services Inc. (RS)) was acting as agent of the exchange prior to self-listing to monitor trading of all listed issuers and monitor compliance with timely disclosure requirements, it continues to perform these functions with respect to the listed exchange's securities.

With respect to companies that could be considered to be competitors of an exchange, one approach has been to establish some special oversight arrangements. For example, in Canada, any initial or ongoing listing matter or a complaint of a competitor must be immediately brought to the attention of the conflicts committee who must notify the regulator. In Singapore, there is also a conflicts committee whose principal responsibility is to identify conflicts of interest or possible conflicts of interest that may arise in the course of performance of regulatory functions. In Japan, the regulator gives advice to the exchange in respect of its oversight of the listing and trading of competitors generally. In Hong Kong, if an applicant for listing or a listed company considers that a conflict of interest may exist between the interests of the exchange and the interests of the proper performance of any regulatory function, it can bring the facts of the matter to the attention of the regulator.

c) Specific terms and conditions added to an exchange's authorization

In some jurisdictions, terms and conditions have been imposed to deal with specific issues. For example, in order to address financial viability concerns, many jurisdictions of SC2 members have general requirements for the exchange to have adequate financial resources (Australia, Canada, Germany, Hong Kong, Singapore, the UK). Some jurisdictions of SC2 members have set minimum capital requirements for exchanges to maintain. In the UK, exchanges are required either to meet a standard capital requirement or to negotiate a customised requirement that may better reflect the risks of their business. In Canada, exchanges must meet specified financial ratios on a regular basis and report to the regulators in the case of a shortfall. In France, although no longer required by law, Euronext Paris is still a credit institution subject to prudential capital requirements.

Some jurisdictions of SC2 members also have specific requirements relating to regulatory resources. For example, in the USA, all exchanges are required to have the capacity to carry out the purposes of the law and to comply and to enforce compliance by their members with the securities laws and the exchange rules. In other jurisdictions (Australia, Canada), there are general requirements that exchanges have the ability to perform their regulation functions. In Canada, a specific term and condition has been included in the authorization order of one of the for-profit exchanges to provide that the regulatory division should have a separate budget that is subject to approval of the board.

Some jurisdictions may also specify how certain types of regulatory income may be spent, in effect setting out to prevent such income becoming a source of profit. In the UK, for instance, an exchange may use income from disciplinary actions in one any of three ways: to offset the costs of bringing the action; for the benefit of the market's users, or for charitable purposes. In Canada, the Bourse de Montréal has requirements that fines, fees and other costs imposed by a disciplinary committee or by the Special Committee be attributed to the Regulatory Division and cannot be used to fund commercial activities of the exchange.

C.5. Transfer/removal of regulatory functions

Jurisdictions might choose to remove a regulatory responsibility from an exchange either because they perceive an unacceptable conflict of interest in a for-profit exchange retaining that responsibility or because they consider that granting an exchange an exclusive regulatory franchise might impede competition.

In certain circumstances, a jurisdiction may decide that it is better to transfer a specific regulatory responsibility from an exchange to a different body. In some jurisdictions, transfers may be within the powers of the regulatory authorities. In others, they may require a governmental decision or new legislation.

Transfers are particularly likely to be considered in situations where allowing the exchange to perform a regulatory function or to regulate emerging competitors is considered likely to distort or prevent competition in the marketplace. For example, in 2001 the UK government transferred the role of UK Listing Authority, a public function previously assigned to the London Stock Exchange, to the Financial Services Authority, the statutory regulator. It did this to remove a perceived competitive advantage of the LSE at a time when competing exchanges were emerging in the UK and the LSE had announced its decision to demutualize.

In addition to listing, the question of whether an exchange should continue to exercise specific regulatory responsibilities may also be particularly relevant in respect of exchanges that have an extensive role in member regulation. In Hong Kong, following the demutualization and merger of the stock exchange and the futures exchange, the securities regulatory authority assumed the role of front-line regulator of exchange participants including monitoring compliance with capital requirements. The exchange continues to be responsible for monitoring compliance with its trading and clearing rules. In Singapore, since July 2003, the securities regulatory authority has taken over the responsibility for on-site inspection of brokers. The transfer was to provide greater clarity in regulatory responsibilities and to reduce duplication of work.

Some jurisdictions have also addressed the issue of the practicability and desirability of an exchange continuing as the main market monitor in a more competitive, and thus fragmented, trading environment. For example, in Canada, following the implementation of the alternative trading system (ATS) rules, RS, a separate SRO (owned jointly by the TSX and a member regulation SRO) was established to perform market regulation of exchanges and ATSs; exchanges such as TSX have contracted with this SRO to perform certain regulation functions. The exchanges retain responsibility for these functions and are required to monitor their performance by RS. In the United States, some exchanges have outsourced certain regulation functions to the NASD; however, each exchange retains responsibility under the U.S. securities laws.

In general, a transfer of responsibilities is a major decision that may have many direct and indirect consequences and should not be made lightly. Most countries continue to regard - and value - exchanges as front-line regulators of their markets, often providing them with legal protection in discharging any regulatory responsibilities imposed on them under legislation.

D. Broader regulatory issues arising from the new business models

Exchanges' transition to a for-profit business model and more competitive operation raise a second, broader set of regulatory issues. Some of these issues are not necessarily new issues but may have a different focus in a more competitive and commercial environment. This may require new supervisory approaches as a result of the changing manner in which exchanges operate, develop and structure their businesses. The issues are wide-ranging. In areas relating to competition and cross-border business, they are also challenging.

D.1. Background

For-profit exchanges have a strong incentive to be active commercially. They have a broader base for funding and there is pressure to deliver returns to their shareholders - whether by raising income or cutting costs.

Active business development is not an innovation of for-profit exchanges. Mutual exchanges seek to broaden or improve their businesses where it benefits their trading members. For example, many of the major mutual exchanges competed actively for international listings; Deutsche Börse forged its links with the Swiss Stock Exchange (SWX) to create a jointly owned derivatives business, Eurex, some three years before it listed its shares. In the USA, NASDAQ embarked on several new projects outside the US before it completed its private offering in January, 2001. In addition, the USA futures exchanges were actively developing business through innovation prior to demutualization (for example, Chicago Mercantile Exchange's Globex trading system and various linkage arrangements).

For-profit exchanges are likely to continue to accelerate commercial activity. Above all, they need to deliver increasing returns to investors. They also enjoy broader access to funding than mutual exchanges and have greater freedom to pursue opportunities unrestrained by the interests of any particular group of participants (although this broader access may be accompanied by a greater degree of shareholder activism).

In addition to more aggressive competition to win business, several exchanges have made more strategic moves, generally with the aim of expanding business and achieving economies of scale. These moves have included the creation of the transnational Euronext group and the subsequent acquisitions by the listed company of the Lisbon exchange and the London International Financial Futures Exchange (LIFFE). Deutsche Börse followed its listing with the acquisition of the 50% of Clearstream International, the international securities depository, it did not already own. In recent years, a number of exchanges have expressed interest in acquiring the London Stock Exchange. In northern Europe, the OM Group has also created a transnational group by acquiring the Helsinki, Copenhagen and several Baltic exchanges. The NYSE, as noted above, has proposed merging with Archipelago. Finally, in April, 2005, NASDAQ agreed to acquire Instinet, the owner and operator of the INET ECN (and the deal closed on December 8, 2005). As a result of this and related transactions, INET will become a wholly-owned subsidiary of NASDAQ.

D.2. Competitive behaviour

More aggressive competition to increase market share in trading can increase the use of incentive schemes. It is important that they remain compatible with the integrity of pricing and investor protection.

Active competition among exchanges – and between exchanges and other trading venues – offers market participants (and their clients) the possibility of enhanced and more finely-priced levels of service, especially in the USA and European markets. The potential scale of the benefits to be generated from competitive service provision inevitably depends on the extent to which a market-place is already delivering an efficient service that meets user requirements. In rare cases, the strength of the competitive offering is so great that the provider wins significant market share - and forces those losing market share to seek ways of becoming more efficient. This phenomenon has been particularly evident in the huge impact of ECNs in the USA over the past decade. And in Europe, Eurex was notably successful in winning the on-exchange bond futures business from LIFFE. But even where a new, more competitive offering fails to gain market share, the simple fact that it poses a threat is often enough to force incumbents to become more competitive. In Europe, aggressive attempts by some exchanges to win trading from other exchanges have not so far caused material transfers of trading, but they have played a significant role in holding down charges. Similarly, in the US, Deutsche Börse's launch of Eurex US in 2004 sparked major reductions in the CBOT's trading fees – although they have recently increased them following Eurex USA's failure to win a significant share of the market.

While the efficiency benefits of competition are to be welcomed, it is also important that competition is conducted in a manner consistent with market integrity and investor protection. Frequently, the potential benefits for a market participant in transferring its business to another exchange are only marginal. There may also be a transitional risk if liquidity does not accumulate on the rival platform as expected. Like other companies, exchanges aiming to capture business from competitors may feel they need to offer incentives - and exchanges under attack often respond to the competition with new incentive schemes of their own.

Regulators in some countries have found that they have had to review their approach to incentive schemes and devote considerably more time to the review of individual incentive scheme proposals than was the case only a couple of years ago. The challenge for regulators is to allow normal commercial practices as much freedom as possible but to recognize that in the exchange environment they also need to protect the principles of pricing integrity, client interests and best execution. This requires regulators to have both clear principles in respect of incentive schemes and a good understanding of the incentive schemes being used by trading platforms, whether located in their own jurisdiction or offering competing services from external locations.

D.3. Extension of exchange activities

In seeking to expand their businesses, exchanges may wish to move into unregulated activities or expand present services in a way that may not be explicitly provided for under their existing authorisation and which in some cases increasingly blurs the line between

exchange and OTC activity.

When seeking business expansion opportunities, exchanges may create a number of new "big picture" questions for regulators in terms of the nature of business expansion.

A first issue can arise over the extent to which it may be appropriate for an exchange group to diversify into totally new areas, and in particular "unregulated" activities. To date, there seems to be little evidence of exchanges/exchange groups wanting to diversify outside financial market services (and related technology) fields. If that were to change, reputational risk should provide protection against some forms of diversification. Whether or not an exchange is permitted to operate other activities within the same corporate entity may be a matter of established national law. In policy terms, the issue may be the extent of the risk to the exchange of allowing multiple activities to take place within the same legal entity as the exchange. One obvious source of risk where this is permitted would lie in the availability of financial resources to discharge the specific responsibilities of the exchange.

A second issue may arise when an exchange wishes to expand into services slightly outside the traditional (regulatory) scope of its activities. Such expansion might raise either of the following issues. In the first case, it may be that the definition (if there is one) of an exchange and its activities creates difficulties because it is too restrictive, too permissive – or, simply, too unclear. In the second, the exchange may wish to move into activities that raise conflict of interest issues with regards to the exchange's "core" services (e.g. OTC clearing) or vis-a-vis exchange participants providing the same services (e.g. broker or dealer services).

D.4. Cross-border activity and affiliations

Electronic trading gives exchanges considerable scope to build cross-border, even global, businesses. The development of cross-border trading and the creation of multinational exchange groups raise a considerable challenge for regulators to maintain an appropriate regulatory framework while fostering market development.

Perhaps the development raising the most regulatory issues is cross-border business development. So far, this has taken three main forms:

- the expansion of remote membership;
- the establishment of new market facilities in foreign countries;
- mergers with, or acquisitions of, exchanges in other countries.

a) Remote membership

Not all electronic exchanges offer remote membership, but it has become increasingly common in recent years and for some exchanges has been a major source of revenue. For example, in 2004 Eurex had more than three-quarters of its members outside Germany and these members accounted for a substantial proportion of its business.

For regulators of exchanges offering remote membership, the main considerations have normally related to the "status" requirements of the foreign participant (e.g. whether they always need to be licensed and, if so, whether in the jurisdiction of the firm, the jurisdiction

of the market, or both), the information-sharing and co-operation arrangements in place with the regulatory authorities of the participants and the adequacy of the clearing and settlement arrangements. (Regulatory approaches on the part of jurisdictions whose firms may wish to participate electronically in foreign exchanges vary considerably.)

b) Establishing subsidiaries

So far, there have been relatively few attempts at expansion through the establishment of foreign subsidiaries. Exchanges have generally considered this option, in preference to remote membership, when their trading model may not lend itself to remote membership, when they may have preferred to create a joint venture with local investors, or when they perceive commercial and possibly legal and regulatory benefits in having a locally incorporated and regulated exchange.

For the regulatory authorities where the subsidiary is authorised and operates, the exchange is subject to the same regulatory requirements as other (similar) domestic exchanges. The main difference may be in respect of any governance and other conditions imposed as a result of foreign or group control.

c) Cross-border corporate groups

Some exchanges have set about expansion through merger with, or acquisition of, exchanges (or trading platforms) in other countries. This has been particularly the case in the EU, where there has been a widespread view that the EU, as an evolving single capital market, has an over-supply of exchanges, or at least exchange infrastructure, for the longer term. There both the Euronext and the OM group have expanded cross-border via merger and acquisition.

The issues raised in each instance of cross-border infrastructure vary, depending on the nature of the corporate structure and the way in which the group intends to operate its business. In general, they include some, or all, of the following:

- the fitness, governance, management role and regulatory status, if any, of the top/controlling entity;
- the status and responsibilities of the subsidiary exchanges/market venues;
- specific provisions and supervisory arrangements where all or part of the market activity is effectively transferred to another country (and, possibly, the exchange closed down completely);
- specific provisions and supervisory arrangements when an exchange group centralises one or more of its exchanges' regulatory functions (e.g. market monitoring) in one country;
- information sharing and co-operation agreements.

The nature of the issues for regulators in the different countries which have some legal jurisdiction over the new structure will also vary, according to the requirements of their national law. As groups come to operate in a more integrated way, a major challenge for regulators will be to ensure that the elements of the group for which they have legal responsibility comply with their national regulatory requirements but also to find ways to collaborate with other regulators that enable regulation to be conducted effectively, and also efficiently. One part of that process may involve new working arrangements among the

relevant regulators. A further element may be to persuade cross-border groups to organise their internal structures in a way that facilitates regulatory efficiency.

D.5. Outsourcing

Exchanges may seek to outsource certain functions for a variety of reasons. In such cases, it should be clear which entity is responsible for a particular function.

Outsourcing[14] raises a number of issues. More complex issues may arise in this context when exchanges propose to outsource activities relating to regulatory functions. Outsourcing may be considered for a number of reasons including cost reduction or as a way to address certain conflicts of interest. In such cases, the critical test for most regulatory authorities will be clarity as to where regulatory responsibility for the function resides and the extent to which the outsourcing is consistent with the exchange's ability to continue to discharge that responsibility. If a third party is performing key regulatory functions, regulators may also want to consider whether the entity is appropriately regulated.

In addition, an emerging issue is the degree to which an exchange should outsource its key operational functions. This could involve outsourcing to a third party provider or, where relevant, to other parts of the group. This may make sound commercial sense and, in general, be in the interests of market users. However, if an exchange outsources the whole of its trading platform, regulators will want to take any appropriate steps to help ensure that the platform is operated in conformance with all regulatory obligations, and will want to focus on the risk assessment and management of such outsourced services. Regulators may also need to assess the extent of outsourcing that they consider to be consistent with the statutory and other requirements for registration as an exchange.

D.6. Maintenance of unprofitable markets

Exchanges may decide to withdraw from some market sectors in which they cannot operate sufficiently profitably.

To date, there have been few cases of exchanges closing down market segments because those segments have ceased to be commercially attractive to them. This could happen more in the future, particularly during a prolonged downturn in activity. Some exchanges may resist closure or sale of a sector if they consider it as an important part of the brand value, regardless of its level of profitability. From a national viewpoint, there could be concerns about such a withdrawal unless there was another entity prepared to take on that business. From a regulatory viewpoint, the issues would focus on the orderly transfer or closure of the activity.

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[14] See generally, “Principles on outsourcing of financial services for market intermediaries”, Report of the Technical Committee, February 2005.

D.7. Monopoly operation

It is difficult to know whether a more contestable environment for market operators (whether or not exchanges) will lead to sustained competition or whether the natural tendencies of both market liquidity and for-profit companies to move towards concentration will lead to a very small number of dominant for-profit market operators.

One of the paradoxes of competition among trading venues is that the tendency for liquidity to concentrate imposes a natural constraint on the scope for competition among trading venues. So, while competition between exchanges (and other trading venues) may be healthy in the general context of fostering efficiency, there may well be a tendency in many markets for competition to diminish once any significant inefficiency in the delivery of trading services have been minimised. When that point arrives will vary considerably from market to market, but listed exchanges do now have both the commercial motivation and the access to capital that may hasten consolidation (in whatever form) between exchanges and, ultimately, bring monopoly issues higher up the agenda. [15]

How and when those issues arise will depend in large part on the way in which individual markets operate. They may be affected by a wide variety of factors, such as the structure of the value chain (from listing through trading to post-trade services), the commercial incentives for competition in listing, and the controls of data revenues. There may also be issues with respect to the fee-setting process. Where there is little or no competition, the possibility exists that fees may be used in a discriminatory manner. In some countries, these issues fall directly within the remit of the regulatory authority; in others, they are the responsibility of the competition authorities, or a shared responsibility. Regardless of where the legal responsibility lies, this is an issue that is likely to be rising up regulators' agendas over the medium-term.

D.8. Pressure on regulatory authorities

Exchanges' need to react speedily to new business opportunities and challenges is increasing the need for regulatory authorities to be able to respond promptly in dealing with regulatory approvals and inquiries from exchanges.

For some regulators, a particular feature of the recent changes taking place in exchange markets has been the increased level of commercial initiatives by exchanges and the increased pressure on regulators to approve new initiatives and rule changes rapidly. Regulatory authorities may therefore need to give some thought to how they consider

[15] For example, the U.S. Department of Justice opened an investigation into the possible anti-competitive issues raised by the proposed merger between the NYSE and Archipelago. In November 2005, the NYSE announced that the Department of Justice Antitrust Division closed its investigation of the NYSE/Archipelago merger with no further action. On the other hand, in 1999, the ASX and SFE announced a proposed merger. However, the Australian Competition & Consumer Commission did not allow the merger to proceed because of concerns about the lack of competition and monopolistic power of a single market operator in Australia.

approvals, particularly given that some of the issues that they now need to deal with are novel and complex.

D.9. Conflicts between exchange and listed company regulation

An exchange that is listed may be subject to overlapping listed issuer requirements and exchange requirements.

Changes in listed company regulation may have an impact on the requirements imposed on a listed exchange. In some cases, these requirements may conflict with the existing requirements imposed on an exchange and therefore cause practical difficulties with compliance. For example, an exchange may have certain corporate governance requirements (i.e., independent director requirements). Listed company regulation may also impose corporate governance requirements, which may be different from that imposed on an exchange. It is necessary to ensure that these requirements are consistent, although it may be the case that additional requirements are imposed on a listed exchange.

E. Conclusions and recommendations

Since publication of the 2001 paper, the trend for exchanges to demutualize, and, in many cases, obtain exchange listings has continued. The changes in exchange ownership have highlighted certain regulatory issues. However, demutualization is only one aspect of the changing environment for exchanges. Many exchanges, whether demutualized or not, are operating in a more competitive environment. Exchanges have been more active in seeking ways to expand their business, whether by developing or competing for products and services, by expanding their reach to participants beyond their home borders, or by seeking mergers with, or acquisitions of, other market operators. Several key issues relating to the operation of exchanges, and the development and structure of their business are still emerging.

The fact-finding exercise among SC2 members revealed that:

1. All exchanges continue to perform all or some of the regulatory functions traditionally assigned to them;

2. Most securities regulatory authorities have taken steps, either through modified regulation or enhanced oversight, to ensure that exchanges continue to perform regulatory functions in a proper manner;

3. The steps taken have tended to be customised and pragmatic, based on an assessment of the particular circumstances in a jurisdiction; and

4. When exchanges have decided to self-list, all the jurisdictions of SC2 members have considered specific measures and taken appropriate steps to deal with the particular conflicts and issues that arise.

As exchanges have evolved, there are a number of additional issues that regulatory authorities have been considering.[16] As noted, this paper discusses emerging issues resulting from increased competition, extension of exchange activities, cross-border activity and affiliations and outsourcing, among others. The main questions that arise are as follows:

(i) Do the existing regulatory requirements for exchange licensing/registration and operation continue to be adequate and easily adaptable to the emerging issues or are new tools necessary?

(ii) How should the new business activities of exchanges be considered and included in the regulatory framework?

The answers to these questions are often far from straightforward. Some touch on much larger issues relating to the future of exchanges, the relationship between exchange regulation and exchange branding, the desirability of competing standards, and the case for a more functional rather than institutional approach to market regulation. However, it is clear that regulatory authorities must at least have the ability to identify regulatory concerns arising from market developments and clearly developed principles for determining what, if any, measures are appropriate in a particular situation. The following recommendations can be made at this time:

1. **Regulatory authorities should have adequate arrangements to enable them to keep the changing market environment under review and to identify emerging issues in a timely fashion. These arrangements should include ongoing dialogue with exchanges (which could include regular meetings with exchange boards and/or management or specific reporting obligations) to help ensure an understanding of their businesses and practices**. To promptly evaluate the impact of any changes, regulatory authorities need to be in a position to obtain up-to-date information about any developments or changes to exchange operations. In some cases, in addition to the dialogue with exchanges there may be a need for regulators to hold discussions with key stakeholders, including users of exchange services, to determine if the new initiatives or activities of exchanges require regulatory responses.

2. **Regulatory authorities should assess whether the changes being made by exchanges require any adjustments to the regulatory framework for an individual exchange or for exchanges generally, and should address any such need for changes promptly.** Various approaches have been described in this paper:

[16] For example, in 2003, the United States Commodity Futures Trading Commission (CFTC), prompted by market changes such as demutualization and increasing competition, initiated a comprehensive review of self-regulation. The wide-ranging review is examining, among other things, the governance implications of structural changes in the futures markets, possible conflicts of interest, the appropriate composition of boards to best protect the public interest, internal versus external oversight of SRO responsibilities and the impact, if any, of varying business models on SRO self-regulatory behavior. *See Federal Register* 32327 (June 9, 2004). In November 2005, the CFTC requested additional comments on specific questions. It seeks public comment on a range of SRO issues, including governance, the composition of SRO boards of directors and disciplinary committees, and the impact of changing business and ownership models. Commenters were also asked to consider the effectiveness of board-level regulatory oversight committees, the unique role of outside regulatory service providers, and the impact of securities exchanges' listing standards on publicly-traded futures SROs. *See* 70 *Federal Register* 71090 (November 25, 2005). The CFTC also announced a public hearing on these issues to be held on February 15, 2006. See http://www.cftc.gov/opa/press05/opa5138-05.htm.

governance arrangements, separation of functions within an exchange, restrictions on ownership, oversight arrangements (i.e., increased oversight, special self-listing arrangements and the addition of specific terms and conditions to authorization documents such as those relating to minimum capital or financial viability more generally) and transfer/removal of functions. These approaches should be considered as regulators seek to re-evaluate their own regulatory scheme. In making any adjustments, new tools may become necessary and a survey of actions taken by supervisors in other jurisdictions may be of assistance as these issues are constantly evolving.

3. **Regulatory authorities should carefully assess the impact on resources of any changes to the regulatory model for exchanges, and ensure that the core regulatory obligations and operational functions of exchanges are appropriately organized and sufficiently resourced.** This assessment should include the impact on both financial and human resources (e.g., sufficient funding, number of people and expertise) of any changes to functions performed by exchanges. While regulatory authorities may be able to address some issues through existing supervisory powers or by developing modified supervisory arrangements with exchanges, there may be circumstances (when permitted by the legislative structure) where a regulatory function is transferred to a different entity. In the case of a transfer of functions it is especially important to carefully consider the impact on resources at the entity to which they have been transferred, whether at the regulatory authority, other exchange or SRO or other entity as well as whether the appropriate systems are in place to perform the regulatory function should be analyzed.

4. **Securities regulatory authorities should be prepared to share relevant information concerning cross-border activity.** With increased cross-border activities, whether by exchanges or competing infrastructure providers, regulatory authorities should consider whether all necessary information sharing arrangements are in place to facilitate the exchange of relevant information. There may be a need to obtain information for market oversight purposes or more generally (for example, information on listing processes, settlement procedures or trading systems).

5. **Regulatory authorities should consider competition issues that may arise in connection with the evolution of exchanges as discussed above where such evolution impacts market integrity, efficiency or investor protection.** This is an important consideration given the complex competition issues that may be raised by market structure developments and their interaction with market integrity and investor protection.