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Evolution in the Operation, Governance and Business Models of Exchanges: Regulatory Implications and Good Practices

FINAL REPORT

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Executive Summary

Exchanges are the lynchpins of the financial system; they are the organized marketplaces through which most equities (as well as many other financial instruments[1]) are traded. Consequently, how exchanges are organized and run is of critical interest to regulators – both with respect to how exchanges operate and the effect of the exchanges' operations on the wider financial market. The transformation of exchanges from mutual ownership to for-profit entities, known as demutualization, has contributed to increased competition, technological advancements, and the emergence of new types of trading venues[2]. In addition to their traditional market functions, most exchanges now also engage in other diverse activities such as data services and technology provision.

The Report focuses on equity exchanges but may be of relevance to other types of trading venues and trading in other classes of financial instruments. In particular, this Report:

- describes and analyses the changes in the structure and organization of exchanges and, in particular, their business models and ownership structure;
- outlines the impact of these changes on market structure, emphasizing the shift from traditional models to more competitive, cross-border, and diversified operations, whereby exchanges have become part of larger corporate groups, leading to resource-sharing and process consolidation;
- discusses regulatory considerations and potential risks and challenges, exploring: (i) the organization of individual exchanges and Exchange Groups, noting the adoption of matrix structures and potential conflicts of interest; (ii) the supervision of Multinational Exchange Groups; and (iii) the potential challenges of supervising individual exchanges within Exchange Groups; and
- outlines good practices that regulators may consider in the supervision of exchanges, particularly when they provide multiple services and/or are part of an Exchange Group.

In particular, looking at the regulatory requirements and supervisory arrangements currently in place across IOSCO jurisdictions to help to ensure that exchanges are properly run, and considering the existing IOSCO Principles on secondary markets[3], this Report proposes six good practices that regulators may consider.

They cover three specific areas, namely the: (1) Organization of Exchanges and Exchange Groups, (2) Supervision of Exchanges and other Trading Venues within Exchange Groups, and (3) Supervision of

[1] E.g., ETFs, bonds,.

[2] For the purpose of this Report, the term "trading venue" is generally defined as exchanges or other multilateral trading facilities, including, for example, alternative trading systems (ATSs) and multilateral trading facilities (MTFs). We recognize, however, that the concept of a "trading venue" is evolving in several IOSCO member jurisdictions. For example, the concept may, at the discretion of individual members for their jurisdictions, also include the European "organized trading facilities" (OTFs). However, for this project, a "trading venue" does not include a single dealer system or a broker crossing facility.

[3] Please see in particular Principles 33-35, IOSCO Objectives and Principles of Securities Regulation, May 2017.

Multinational Exchange Groups. For each of these topics, the good practices are complemented by a non-exhaustive list of regulatory and supervisory tools currently used in IOSCO jurisdictions to address the issues under discussion, which may serve as examples to other regulators in adapting the good practices in their respective jurisdictions. However, these "toolkits" are examples only and do not exhaust the way the proposed good practices can be implemented in each jurisdiction.

The practical implementation of the provisions contained in the good practices remains nevertheless within the remit of each jurisdiction.

Regulators could consider adopting the following **six good practices**:

Organization of Exchanges and Exchange Groups

1. Assessing the organizational structure of the exchanges under regulators' supervision in order to ensure that decision-making autonomy and independence regarding the discharge of exchanges' regulatory obligations including ensuring market integrity practices and controls are maintained at the level of the individual exchange, subject to domestic legal and regulatory requirements and regulatory discretion, even if the exchange is part of an Exchange Group;
2. Assessing whether exchanges under regulators' supervision have put in place arrangements and policies to ensure that the exchanges operate in compliance with their respective regulatory obligations. In particular, assessing whether individual exchanges, which are part of an Exchange Group, have sufficient expertise and knowledge on their own, to remain in control of any decision-making related to regulatory compliance;
3. Assessing whether there are any potential conflicts of interest that may arise due to exchanges being part of an Exchange Group and in managing its commercial interest and regulatory obligations;

Supervision of Exchanges and other Trading Venues within Exchange Groups

4. Assessing whether exchanges under their supervision establish effective arrangements for market operations, including conflicts of interest management, corporate and operational governance, and promoting transparency of trading. Regardless of the nature, size, or complexity of the trading venue, it is important that regulators consider monitoring whether supervised exchanges have in place processes to deal with the evolution of their corporate structure and the potential conflicts of interest arising from it;

Supervision of Multinational Exchange Groups

5. Having regard to domestic legal and regulatory requirements, making use of mechanisms such as ad hoc cooperation, MOUs, supervisory colleges, and regulatory networks as considered under previous IOSCO reports, to facilitate and support supervision and supervisory cooperation; and
6. Monitoring developments in the structure and ownership of the exchanges and Multinational Exchange Groups to ensure that they continue to have the ability to supervise exchanges and trading venues that operate in their jurisdictions adequately.

Chapter 1 – Introduction

1.1. Background

Exchanges are the lynchpins of the financial system; they are the organized marketplaces through which most equities (as well as many other financial instruments) are traded. Consequently, how exchanges are organized and run is of critical interest to regulators – both with respect to how the exchanges operate and the effect of the exchanges' operations on the wider financial market. The fair and efficient functioning of exchanges help maintain liquidity and facilitate price discovery, which in turn support the raising of capital for the real economy and the investment of savings by investors. This paper focuses on equity exchanges but may be of relevance to other types of trading venues and markets trading in other classes of financial instruments.

IOSCO Principles 33-35[4] set out the importance of appropriate supervisory arrangements to facilitate the effective operation of exchanges and trading systems, with a view to maintain the integrity of the secondary markets both at the stage of authorisation and throughout the ongoing operation of the exchange.

In recent years, there have been significant changes in the business models of exchanges and the structure of secondary markets, including the emergence of new types of trading venues. In many cases, the business models of exchanges have evolved in response to market competition and technological and market developments. In particular:

- **Governance**: The governance of exchanges has evolved, in some cases as a result of demutualization and their increasing commercial function. As a result, regulators have sought to preserve the independence of exchanges' regulatory functions and responsibilities. In some cases, exchanges have become part of larger corporate groups, leading to the combining of resources and processes across the different entities, which may include other exchanges and trading venues belonging to the same group.
- **Interconnections, consolidation and cross-border activity**: Over time, in some jurisdictions, the cross-border activity and interconnection of exchanges have increased. In particular, in some areas, groups have acquired other entities and now operate exchanges and other trading venues in a number of jurisdictions, which has increased interconnectedness across jurisdictions.
- **New business lines**: Many exchanges – either individually or through affiliates – have expanded their activities, for example, into selling data services or providing technology services.

This Report describes and analyses the changes in the structure and organization of exchanges and, in particular, the business models of exchanges and their ownership structure.

[4] IOSCO Objectives and Principles of Securities Regulation, May 2017.

To support the analysis in this Report, two rounds of surveys were conducted. One between November 2022 and January 2023, and another between June and July 2023. The purpose of these surveys was to gather information on recent developments from a regulatory and supervisory standpoint. The areas covered included the business lines, governance and cross-border operation of exchanges; changes in the regulatory perimeter; and the impact of fragmentation, technology and digitalisation. The survey also sought information on the legislative and regulatory requirements and supervisory approaches adopted by regulators in the regulation and supervision of exchanges and Exchange Groups.

Annex A to this Report contains a list of 27 IOSCO regulatory authorities (from 25 jurisdictions) and six industry representatives that completed the surveys.

Annex B to this Report presents the previous relevant IOSCO work and recommendations.

1.2. Key Concepts/Glossary

For purposes of this Report:

- "Exchange Group" means a group of entities, including an exchange or exchanges, operating under common ownership or management. An Exchange Group may operate different exchanges or other trading venues for different types of financial instruments (such as stocks, bonds, futures, and options) and may operate different entities for other services (such as clearing, settlement, data, and technology).
- "International Exchange Groups" or "Multinational Exchange Groups" are Exchange Groups that operate in multiple jurisdictions; "Domestic Exchange Groups" operate only in one jurisdiction.

1.3. Feedback on the Consultation Report

In April 2024, IOSCO consulted on the key findings and six proposed good practices primarily aimed at equities listing trading venues. The feedback period closed on 3 July 2024, with a total of 20 responses received from a range of stakeholders falling into these broad categories:

- Industry associations (7);
- Regulatory authorities (3); and
- Trading venues (10).

The IOSCO Board is grateful for the responses received. The feedback has been carefully considered and, where appropriate, incorporated in the Final Report. In addition, Annex C summarises the feedback received on the consultation questions and sets out IOSCO's response.

Chapter 2 – Market Evolutions

2.1. Demutualization of exchanges and factors of exchanges' evolutions

In the past, exchanges were mutually owned and operated by their members, including traders, brokers, and market makers. In the last two decades many exchanges have demutualized[5], resulting in exchanges becoming for-profit companies that are no longer owned and operated by their members. Today, most major exchanges are publicly traded or privately owned companies. In some jurisdictions, regardless of the change in ownership structure, exchanges continue to be self-regulatory organizations.

Changes in information technology in financial markets, introduction of new competitors, and rising capital costs associated with these changes were among the reasons that led the exchanges to be demutualized. Also, exchanges' transition to for-profit business models and increased competition have incentivised exchanges to expand their activities and their cross-border presence and affiliations. The following factors may have contributed to these developments:

- the focus on lowering costs, which may have impacted revenues and incentivised exchanges to pursue new business strategies. In particular, to diversify their revenues streams, some exchanges have expanded their business lines, including directly providing technology services (in terms of connectivity services, provision of trading platforms to third parties, etc.) and/or other ancillary services to their members, participants and/or other trading venues. Another factor may have been the desire to mitigate financial risks that could result from reliance on a single activity;
- in certain instances, the development of a mergers and acquisitions (M&A) strategy – through the acquisition of other (domestic and/or foreign) entities – and the consequent optimisation of IT systems and services and human resources. In some instances, this has been achieved through the development of common trading platforms across different exchanges and/or trading venues operated by the same Exchange Group;
- increased competition, which has developed in some jurisdictions partly as a result of changes in the legal framework governing the trading venue perimeter and regulatory obligations[6]. Exchanges face competition from new types of trading venues and platforms, including bilateral systems that may be, in general, less regulated, or regulated differently, than Exchanges. Furthermore, there is competition between lit and dark trading platforms,

[5] Most IOSCO jurisdictions surveyed have demutualized exchanges (i.e. Australia, Brazil, Canada, France, Hong Kong, Italy, Kuwait, Malaysia, Netherlands, Romania, Singapore, Spain, Sweden, Türkiye, UK, U.S.). Some jurisdictions have both mutually owned and demutualized exchanges (China, Japan, Mexico, Switzerland).

[6] For example, the MiFID II framework in Europe.

considering also the evolution of the legal framework in different jurisdictions. Finally, exchanges compete with new entrants from other sectors (such as tech companies); and

- technological advancements and the employment of new technologies in the markets and, in particular, the exponential expansion of electronic trading.

2.2. Multiple Business Lines

What constitutes the core business of an exchange may be different across IOSCO members[7]. However, it is generally considered that functions relating to the listing and trading of financial instruments, the provision of certain market data and self-regulatory functions are core functions of an exchange. Due to the factors listed above, in recent years, many exchanges and/or their affiliates have started to diversify their business lines. Depending on the jurisdiction, business lines (other than the core functions) may be integrated into the same entity managing the exchange. Alternatively, they may be segregated in a separate entity belonging to the same Exchange Group (in some cases, this separation is required by the applicable legal framework).

Many respondents to the surveys highlighted that exchanges within their jurisdictions have started to pursue other activities, such as technological services related to market data or exchange operations. These activities may be conducted by the exchange or by an affiliate within the same Exchange Group. Quantitative data from some survey respondents indicated that revenue derived from other functions have steadily increased and, in the case of some exchanges, this increase was described as significant.

For example, one survey respondent reported that in an Exchange Group headquartered in its jurisdiction, revenue from market data services increased by more than 100% in the past five years. Another respondent observed an increase of over 43% between 2018 and 2021. Revenues from market data distribution services, connectivity, and indices grew by nearly 60% from 2017 to 2022 on one exchange in another jurisdiction that responded to the survey. Only a few jurisdictions reported that revenues from other functions remained stable in recent years.

[7] In this respect, the IOSCO Principles for Secondary and Other Markets in the Objectives and Principles of Securities Regulation identify a set of specific requirements for markets' regulation, including the establishment of exchanges (Principle 33), ongoing oversight of exchanges and trading systems (Principle 34), promotion of transparency of trading (Principle 35), and detection of manipulation and unfair trading practices (Principle 36). Moreover, the 2006 Report discussed the "Roles of an exchange", stating that "*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*." The Report also lists the full set of these responsibilities, including "*member regulation", "product regulation/listing", "trading regulation"* and "*other functions*". With respect to the latter, the same Report recognises that "*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*".

In many jurisdictions, the provision of certain types of market data and related products are regulated activities. In these jurisdictions, market data and related products have been subject to regulatory obligations regarding, amongst other things, their provision to the public, format for disclosure and aggregation over time. In 2022, IOSCO published a report discussing the recent trends in the provision of market data and the underlying regulatory frameworks, which vary among jurisdictions.[8]

For example, in the U.S., the provision of market data (by exchanges and other trading venues) is subject to regulatory requirements, including those related to the collection, consolidation and dissemination of certain pre- and post-trade data and the fees assessed for market data. In Europe[9], the MiFID/R II framework also regulates the provision of market data. Particularly, it requires market operators and investment firms operating trading venues to make available pre- and post-trade information on a reasonable commercial basis and to ensure non-discriminatory access.

Other activities that are gaining increasing relevance within some Exchange Groups are technological services, which include hosting and connectivity services. The IOSCO Report on Market Data in the Secondary Equity Market described that hosting and connectivity services provided by trading venues are important to ensure fair access to market data[10]. However, these functions may not fall under financial markets regulation in all IOSCO jurisdictions. Other activities mentioned by survey respondents included the creation of new indices/benchmarks, as well as post-trade services.

Another trend that has emerged in some instances is the use of a common trading platform (i.e. the use of the same matching engine technology and/or same software) by multiple exchanges or trading venues belonging to the same Exchange Group. This development may have incentivized organizational changes across the various entities, most notably the centralization of IT and market surveillance resources devoted to the management of the common trading platform.

In Brazil, for example, the demutualization of the exchange in 2007 facilitated the expansion of other functions carried out by the exchange, as described in **Table 1** below. Similarly, in Switzerland a sub-holding structure was established at the end of 2022 to attract investors. In Spain, the business model of a supervised market operator - now integrated within a broader Exchange Group - has increased the profits originating from some activities, mainly market data but also technological services.

In Europe, changes in business models resulted in exchanges establishing new departments dedicated to those business lines, including at the group level. As part of this, specific group functions were established to coordinate business lines and, in some cases, centralize activities. Such developments are also currently fostered by competition with other trading platforms at the EU level, such as dark trading platforms, multilateral trading facilities (which are regulated differently from the Exchanges in certain jurisdictions) and bilateral systems.

In the U.S., demutualization occurred many years ago, but the market structure continuously evolves because of new entrants and consolidation of the industry. Holding companies, which sometimes are

[8] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD703.pdf

[9] Meaning the EU and the UK.

[10] "Fair access to market data is an important consideration in the provision of market data to market participants. Fair access may cover issues including market data pricing, connectivity terms and pricing, and contractual arrangements."

also public companies, provide other functions through affiliates, such as technology services, in addition to operating registered exchanges.

Some jurisdictions surveyed explained that there have been no major changes to the organization or funding of trading venues since they became publicly listed companies many years ago. Other survey respondents reported changes or restructuring to the equity structure of the trading venue in recent years.

Furthermore, some Exchange Groups have entered into agreements with technology companies. For example, Deutsche Börse Group and Google Cloud announced a strategic partnership to accelerate innovation, and the London Stock Exchange Group and Microsoft launched a 10-year strategic partnership for next-generation data and analytics and cloud infrastructure solutions.

Responses to the surveys indicated that the increased importance of other functions, as described above, is related to:

(i) increasing demand from market participants for better data, trading solutions and connectivity, as well as competitive pressures to lower fees and to provide higher liquidity and reliable information;

(ii) technological developments such as the emergence of electronic trading platforms;

(iii) regulatory developments, for example, in Europe with the implementation of the MiFID/R II and EMIR frameworks; and

(iv) data and technology solutions which have high synergies with the core business and provide an opportunity to increase a trading venue's non-transactional revenues.

2.3. International business strategy and Multinational Exchange Groups

The trends described above, combined with the changes in ownership structure, have resulted in some exchanges pursuing an international business strategy. Consequently, some exchanges have become part of Multinational Exchange Groups. Increased competition, revolutionary changes in information technology, and increased capital investments necessary to operate today's technology make scale more important than in the past. This has led to some exchanges becoming part of larger organisations, increasing the number of Exchange Groups and Multinational Exchange Groups.

One trend identified in some IOSCO jurisdictions is consolidation, whereby large Exchange Groups acquire smaller trading venues across different geographical regions. In some jurisdictions, there are many different trading venues available for the trading of equity financial instruments. However, they often operate under the umbrella of a few Exchange Groups, which may also operate in other jurisdictions. These may offer a range of trading functionalities and types of trading venues, and provide other types of financial and non-financial services through different entities within the group.

In Europe, the withdrawal of the United Kingdom (UK) from the European Union (EU) has been a contributing factor to the increased cross-border operation of exchanges and other types of trading venues in Europe. This trend includes, for example, the establishment of subsidiary trading venues from the UK in the European Union, and vice versa. Additionally, market operators from the U.S. have set up subsidiaries in the EU (mostly in the Netherlands, Ireland, and France) increasing Multinational Exchange Groups activity in the European Union.

Some examples of Multinational Exchange Groups with a diverse set of activities include:

- Intercontinental Exchange (ICE) Group: the ICE Group owns exchanges, including the NYSE and its affiliated exchanges and other trading venues as well as a number of central clearing houses across the globe;
- London Stock Exchange Group (LSEG): LSEG owns the London Stock Exchange as well as a number of companies in the areas of market data, benchmark administration and technological services. In 2021, LSEG completed the acquisition of Refinitiv, a worldwide provider of market data;
- Euronext Group (Euronext): Euronext currently owns several EU primary listing venues (Paris, Amsterdam, Brussels, Lisbon, Dublin, Milan, and Oslo) and entities that offer market data services, benchmarks, and post-trading infrastructures;
- Hong Kong Exchanges and Clearing Limited Group (HKEX): HKEX Group owns and operates several exchanges and central clearing houses in Hong Kong, the UK and Mainland China; and
- Nasdaq, Inc. (Nasdaq): Nasdaq owns and operates several exchanges primarily in the US and in the Nordic and Baltic regions of Europe. It also operates a CCP and CSDs in Europe and owns entities that provides trading, clearing and exchange technology as well as market data services and benchmark administration.

Please see **Table 1** below for a more comprehensive view.

Table 1 – List of major Exchange Groups

ULTIMATE PARENT COMPANY AREA	GROUP NAME	COUNTRIES WHERE THE GROUP OPERATES	BUSINESS LINES PERFORMED AT THE GROUP LEVEL	EQUITY TRADING VENUES IN THE GROUP
Asia – Pacific	Japan Exchange Group	JP	▪ Equity, Equity-like and Derivatives trading services; ▪ Global comprehensive financial and information platform (market data services and analytics).	▪ Tokyo Stock Exchange (“TSE”)
	ASX	AU	▪ Trading Services; ▪ Connectivity and Data services (data analytics, feeds); ▪ Investment tools for investors (financial education tools, information tools); ▪ Corporate and issuers' services; ▪ Clearing and settlement services.	▪ Australian Securities Exchange (ASX)
	NSE Group	IN	▪ Trading Services; ▪ Connectivity and Data services (data analytics, feeds); ▪ Investment tools for investors (financial education tools, information tools); ▪ Corporate and issuers' services; ▪ Clearing services.	▪ National Stock Exchange of India
	Hong Kong Exchanges and Clearing Limited	HKSAR GB China	▪ Trading Services and related services; ▪ Market Data services and feeds, and data analytics; ▪ Corporate and issuers' services; ▪ Clearing services;	▪ Stock Exchange of Hong Kong ▪ Hong Kong Futures Exchange Limited ▪ London Metal Exchange ▪ Qianhai Mercantile Exchange

			▪ Hosting services.	
	SGX Group	SG	▪ Trading Services; ▪ Connectivity and Data services (data analytics, feeds); ▪ Investment tools for investors (financial education tools, information tools); ▪ Corporate and issuers' services; ▪ Clearing and settlement services. ▪ Depository services.	▪ Singapore Exchange (SGX)
	Bursa Malaysia Berhad	MY	▪ Trading Services; ▪ Connectivity, Data & Information Services; ▪ Corporate and issuers services; ▪ Clearing & Settlement services; ▪ Central depository services; ▪ Voluntary Carbon Market; ▪ Shariah Compliant Commodity Trading Platform; ▪ Electronic trading platform for bond market; ▪ Peer to peer financing platform.	▪ Bursa Malaysia Securities Bhd
Europe	Euronext	NL IT BE IE PT FR NO SG GB US	▪ ENX Trading services, jointly with TV operations to support market participants; ▪ Post-trading services; ▪ Market Data and analytics; ▪ Corporate Services; ▪ News Feeds; ▪ Reference data (LEIs, ISINs, FISNs) assignment (NNA).	▪ Euronext Amsterdam ▪ Euronext Brussels ▪ Euronext Dublin ▪ Euronext Lisbon ▪ Euronext Milan ▪ Euronext Oslo ▪ Euronext Paris

	Deutsche Boerse Group	DE/EU	▪ Trading Services and related ancillary services; ▪ Market Data services and feeds, and data analytics; ▪ Fund processing and distribution; ▪ IT services related to financial services; ▪ Custody, clearing, and settlement services. ▪ Investment Management Solutions, Fund Services, and Securities Services.. ▪ Provision of indices, data, software, SaaS, and analytical solutions.	▪ Boerse Frankfurt
	SIX Group	CH ES/EU GB	▪ Operation of market infrastructures; ▪ Market Data services, feeds, data analytics (financial information including reference data); ▪ Clearing and settlement services; ▪ Trade Repository; ▪ DRSP (EU ARM and APA); ▪ Banking Services (Payment Services).	▪ BME Group (Madrid Stock Exchange, Barcelona Stock Exchange, Bilbao Stock Exchange, Valencia Stock Exchange, and a common Spanish Interconnection System (SIB), BME MTF Equity and Latibex) ▪ SIX Swiss Exchange ▪ SIX Digital Exchange
	London Stock Exchange Group	GB NL/EU	▪ Trading services (and related ancillary services); ▪ Market Data and Analytics, Statistics and Feeds; ▪ DRSP (EU ARM and APA); ▪ Post-trading services (LCH)	▪ London Stock Exchange ▪ Turquoise ▪ AIM
	Aquis Exchange PLC	GB FR/EU	▪ Trading services (and related ancillary services); ▪ Market Data and Analytics, Statistics and Feeds; ▪ Consultancy and Tech Services.	▪ Aquis Stock Exchange Limited ▪ Aquis Exchange Europe

	Borsa İstanbul Exchange Group	TR	▪ Trading Services and related ancillary services in financial, precious metals and diamond markets; ▪ Market Data and Analytics, Statistics and Feeds; ▪ Financial education tools, information tools, investor tools and services; ▪ Provision of indices; ▪ Corporate and issuers' services; ▪ Custody, Clearing and Settlement services (CCP) and related banking services; ▪ Central Securities Depository; ▪ Trade repository; ▪ News Feeds (Public Disclosure Platform) ▪ Fund trading, clearing, settlement and custody services (Türkiye Electronic Fund Trading Platform - TEFAS); ▪ Consultancy and Technology services.	▪ Borsa İstanbul A.Ş. (BİAŞ)
Americas	CBOE Global Markets	NL GB US AU CA	▪ Exchange operations and self-regulatory functions ▪ Trading services (and related ancillary services); ▪ Market Data and Analytics, Statistics and Feeds; ▪ DRSP (EU APA).	▪ Cboe Australia Pty Limited ▪ Cboe Europe Limited ▪ Cboe Canada ▪ Cboe EDGX ▪ Cboe EDGA ▪ Cboe BYX ▪ Cboe BZX
	Nasdaq, Inc.	US CA EE, LV, LT SE, NK, FI, IS AE	▪ Exchange operations and self-regulatory obligations ▪ Trading services (and related ancillary services);	▪ Nasdaq ▪ Nasdaq BX ▪ Nasdaq PHLX ▪ Nasdaq Stockholm ▪ Nasdaq Canada ▪ Nasdaq Copenhagen ▪ Nasdaq Helsinki

			▪ Market Data and Analytics, Statistics and Feeds; ▪ Clearing and Settlement services; ▪ IT services (including an anti-financial crime services business); ▪ Regulatory reporting (EU Trade Repository, APA).	▪ Nasdaq Reykiavik ▪ Nasdaq Oslo ASA ▪ Nasdaq Riga ▪ Nasdaq Tallin ▪ Nasdaq Vilnius
	ICE	GB NL/EU US SG AE	▪ Exchange operations and self-regulatory obligations ▪ Trading Services and related ancillary services; ▪ Market Data services and feeds, and data analytics; ▪ Clearing services; ▪ Inter-Dealer Brokerage (Creditex).	▪ NYSE ▪ NYSE Arca ▪ NYSE American ▪ NYSE Chicago ▪ NYSE National
	TMX Group	CA EU GB	▪ Trading Services and related ancillary services; ▪ Market Data services and feeds, and data analytics; ▪ Corporate and issuers' services; ▪ Clearing services; ▪ Inter-Dealer Brokerage (Shorcan).	▪ Toronto Stock Exchange ▪ TSX Venture Exchange ▪ TSX Alpha Exchange
	B3 Group	BR	▪ Trading services and related ancillary services; ▪ Market Data services and data analytics; ▪ Clearing and Settlement services (CCP and SSS); ▪ Central Securities Depository (CSD); ▪ Trade repository (TR); ▪ Corporate and issuers' services TSP ▪ Banking services such as (i) Settlement bank; (ii) Back-office services for investment funds; (iii) Custody and representation for non-	▪ B3 S.A. - Brasil, Bolsa, Balcão

			resident investors; (iv) Depositary institution of BDRs – Brazilian Depositary Receipts, provided by Bank B3; ▪ Infrastructure for financing such as centralized database for liens over vehicles and real estate.	
	BMV Group	CL CO CR MX PE US	▪ Trading services (equities, listed derivatives); ▪ OTC Markets; ▪ Custody; ▪ Clearing and Settlement services; ▪ Corporate and issuers' services: ▪ Market Data services and data analytics; ▪ Depository.	▪ Mexican Stock Exchange (BMV)

Chapter 3 – Regulatory considerations on the potential risks and challenges and good practices

The market evolutions described in Chapter 2 have influenced the way exchanges and Exchange Groups are organized, which can potentially create new conflicts of interest, as well as operational and organizational interdependencies. These may give rise to potential risks and challenges concerning the regulatory functions and responsibilities of exchanges, as well as supervisory issues.

This Chapter of the Report analyses these supervisory issues and outlines good practices that regulators may consider adopting when supervising exchanges, particularly if they provide multiple activities and/or are part of an Exchange Group.

The good practices identified below are complemented by a non-exclusive list of supervisory tools used by IOSCO jurisdictions to address the issues under discussion, in the form of "toolkits".

Whilst these "toolkits" may serve as examples to regulators for the implementation of the good practices, they do not exhaust the way the proposed good practices can be implemented in each jurisdiction

3.1. Organization of Exchanges and Exchange Groups

The governance structure of the exchanges and Exchange Groups may vary depending on the legal and regulatory framework in each jurisdiction. In many cases, the same entity might perform regulatory, commercial, and administrative functions. In other cases, separate entities may carry out regulatory functions, while other entities belonging to the same Exchange Group undertake the commercial and administrative functions. Typically, exchanges have in place specific provisions that seek to preserve the independence of their regulatory function. One feature observed across some trading venues, on the basis of the survey responses, is the implementation of organizational models designed to optimise resource allocation and organizational capacity. In this respect, exchanges may centralise certain operational functions within Exchange Groups under certain circumstances and conditions, while preserving compliance with regulatory standards across all entities pertaining to the Exchange Group.

One of the models mentioned in the surveys is the matrix structure, in which specific departments are established to manage the various business lines. In such models, cross-company functions are created to coordinate business lines and centralize activities, and employees may report to more than one manager.

These organizational structures might prove useful to fulfil certain objectives, allowing for better cross-functional collaboration and innovation, as well as more efficient use of resources and skills. However, they may also create some challenges, such as conflicts of interest risks, potentially reducing accountability and decision-making autonomy. Where some functions are carried out by a different entity within an Exchange Group, additional complexity may arise from the use of intragroup outsourcing.

Previous IOSCO work, and specifically the recommendations contained in the Final Report on Regulatory Issues (November 2006) arising from exchange evolution, may be relevant for the above-described issues. For instance, the report recommends that regulators 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"*.

Under this perspective, it could be useful to take advantage of the experience and tools adopted by some IOSCO jurisdictions.

PROPOSED GOOD PRACTICES ***Organization of Exchanges and Exchange Groups***
Regulators could consider adopting the following **good practices**: 1. Assessing the organizational structure of the exchanges under regulators' supervision in order to ensure that decision-making autonomy and independence regarding the discharge of their regulatory obligations including ensuring market integrity practices and controls are maintained at the level of the individual exchange, subject to domestic legal and regulatory requirements, and regulatory discretion, even if the exchange is part of an Exchange Group. 2. Assessing whether exchanges, under their supervision, have put in place arrangements and policies to ensure that they operate in compliance with their respective regulatory obligations. In particular, assessing whether individual exchanges, which are part of an Exchange Group, have sufficient expertise and knowledge on their own, to remain in control of any decision-making related to regulatory compliance; 3. Assessing whether there are any potential conflicts of interest that may arise due to exchanges being part of an Exchange Group and in managing its commercial interest and regulatory obligations.

The following sections represent legal and regulatory requirements, as well as supervisory practices **already implemented in IOSCO jurisdictions**, with respect to various aspects pertaining to the organization of exchanges and Exchange Groups that may be useful as considerations or supervisory toolkits for other jurisdictions.

The implementation of good practices remains – from a regulatory and operational perspective – under the remit of each jurisdiction. Their implementation might however evolve over time following the changes in the economic, regulatory and technological framework.

Management of the Exchange

In some Exchange Groups, to enhance the coordination and alignment of interests, and to reduce the costs and complexity of managing multiple boards, members of the board of directors may also sit on the board of other entities within the Exchange Group. Similarly, senior managers may hold positions in multiple entities within the same Exchange Group.

This practice (informally referred to as "dual hatting") can foster the sharing of expertise and information among board members and top management, which can improve the strategic decision-making and oversight of an Exchange Group as a whole.

On the other hand, this practice may create potential conflicts of interest and compromise the independence and accountability of board members and senior management. For example, dual hatting may impair the ability of board members to act in the best interest of each exchange they serve, especially when there are diverging or competing interests within the Exchange Group or with the shareholders of the Exchange Group.

Dual hatting may increase risks of the following conflicts of interest:

- conflicts between the objectives of the exchange/s and other entities within an Exchange Group; and
- conflicts regarding the adoption of specific decisions by the Exchange Group which may not align with the regulatory functions and obligations of an exchange (for instance, regarding financial resources, or the suspension of trading in case of a shared trading platform).

EXAMPLES OF TOOLKITS

Management of an Exchange

In all jurisdictions surveyed, regardless of whether exchanges have demutualized or not, there are legal and regulatory requirements, as well as supervisory practices relating to the management of an exchange. Specifically, the IOSCO jurisdictions surveyed have adopted a variety of legal and regulatory requirements as well as supervisory practices to address the potential issues identified above, which may serve as examples in the implementation the proposed good practices, and in particular:

- ownership and voting limits;
- provisions related to the composition or structure of the board of an exchange, including requiring a minimum number of independent board members;
- independent board members and management to ensure autonomy both from the exchange and from the relevant shareholders of the exchange or Exchange Group;
- ensuring a fair representation of the exchange's members, issuers, and investors within the exchange board; and
- fit and proper requirements for board members, both individually and collectively. Fit and proper assessments may be carried out by the exchange or by the regulator.

Some IOSCO jurisdictions have restrictions on the number of simultaneous director or officer-level positions one person can hold, such as (i) prohibiting the merging of the positions of CEO and Chair of the board, (ii) requiring each employee and board member to disclose all listed shares they own, and (iii) implementing a code of professional conduct regulating the board members' trading. Some jurisdictions also have in place a prohibition for board members of an exchange of a certain size to hold more than either (i) one executive directorship and two non-executive directorships or (ii) four non-executive directorships. Another IOSCO jurisdiction prohibits one person from being an officer of two exchanges simultaneously.

Furthermore, another IOSCO jurisdiction requires the presence of a specific Code of Conduct for directors and members of the various statutory committees of Exchanges, as well as the presence of Public Interest Directors within their governing board.

The provision of periodic reporting from the management to independent directors with respect to the areas with possible conflicts of interest, as a complementary toolkit to be considered by regulators.

Finally, some jurisdictions require listed exchanges on a market to comply with specific governance rules, particularly with regard to board composition.

Multiple reporting lines and the independence of regulatory functions of an Exchange

The use of multiple reporting lines in a functional organization, while helping to ensure consistency in the pursuit of strategic objectives of an exchange or Exchange Group, could have potential impacts on decision-making autonomy of an exchange if they allow direct reporting to managers outside the individual entity. This may especially be the case with regard to the performance of the regulatory functions of an exchange.

In the above context, multiple reporting lines may create conflicts of interest, including:

- between the functional managers at the level of the Exchange Group and the managers of the exchange, who may be subject to different regulatory requirements, responsibilities and objectives and may compete for human, financial and technological resources[11];
- between the managers of entities that are in different geographical areas, who may have diverging views regarding strategies, and policies of the group, also considering the applicability of different regulatory requirements (see point below);
- entities being subject to different regulatory frameworks, for instance the one applicable to the separate subsidiaries and the parent company of the Exchange Group and the regulatory framework applicable to the individual exchange, which may have different requirements regarding transparency, orderly trading and investor protection; and
- conflicts between the regulatory and commercial functions of an exchange (i.e. in the listing processes). This latter issue might be mitigated by implementing procedures regarding

[11] For example, a manager may be interested in maximizing the efficiency and quality of the processes and services offered by its department and the staff allocated at the Exchange Group level, while an exchange manager must be focused on operating an exchange consistent with regulatory requirements.

exchanges' listing applications, to help mitigate potential conflicts between the commercial and regulatory elements of an exchange.

EXAMPLES OF TOOLKITS

Multiple reporting lines and the independence of regulatory functions of an Exchange

Some IOSCO jurisdictions have adopted the following legal and regulatory requirements as well as supervisory practices , which may serve as examples to other jurisdictions in the implementation of the good practices listed above:

- ***Establishment of an independent body***

- requiring that the regulatory function of the exchange must be carried out by an independent department/entity, in some cases also establishing qualification criteria for the directors of that independent body;
- requesting the exchange to have regulatory functions performed by a wholly-owned subsidiary with separate management and board, which reports to the board of the parent company of the Exchange Group;

- ***Internal function***

- tasking trading venue operators with establishing and enforcing their organizational and trading rules;
- requiring that regulatory functions be performed by the registered exchange. In particular, certain conditions/restrictions/safeguards are established in some IOSCO jurisdictions governing how these regulatory functions are performed by the exchange, such as:
  - provisions requiring that commercial interests must not adversely affect the performance of the exchange's regulatory functions;
  - general conflicts of interest management obligations;
  - limits that ensure that key individuals, such as compliance officers, are not assigned responsibility for any commercial function which conflict with or impair, or are likely to impair, their ability to perform the relevant regulatory functions;
  - requiring that the internal department of the exchange responsible for these functions must be independent (with operational autonomy) and have its own budget/resources to carry out the activities under its responsibility;
  - requiring the department responsible for performing these regulatory functions to be led by a board/committee composed of mostly, if not all, independent members;
  - establishing limits on ownership of certain specific roles, and voting;
  - provisions on the confidentiality of information pertaining to the regulatory function of the exchange by the exchange and the holding company, and their personnel, directors, officers, employees, and agents, providing that it shall not be used for any

non-regulatory purposes and shall not be made available to any person other than under specified conditions;

- requiring the establishment of a committee composed of independent board members dedicated to the monitoring of the performance of the regulatory function;
- providing for specific supervision arrangements in the case of an exchange which is also a listed entity;
- imposing limits to the outsourcing of core functions of the exchange (including admission to trading of financial instruments, establishment and any subsequent changes to the rulebook of the trading venue, and suspension and removal of financial instruments from trading and mechanisms to halt trading);
- imposing limits to the activities that an exchange can perform other than its regulatory role;
- requiring registration of at least one employee in the compliance and the risk departments with the regulator; and
- requiring submission of the exchange's plan for the performance of regulatory functions to the regulator for approval or submission of the exchange's annual regulatory report on compliance with ongoing requirements to the regulator.

Both models (separate Self-Regulatory Organization – SRO[12] or within exchange by an SRO committee) might also be envisaged, whereby, if the SRO model is adopted, it cannot be for-profit.

Finally, in one jurisdiction, supervisors consider a mapping of Key Management Personnel (KMPs) and related tasks in terms of importance in the functioning of the Exchange, to identify the level of independence of decision-making structures.

Letter-box entities and outsourcing practices[13]

It has been observed, particularly in the EU, that Exchange Groups may centralize functions, whereby each trading venue belonging to the group transfers some or all of its activities or responsibilities relating to the same business line to a single entity within the group, usually being the parent company or a shared service centre. This process is usually put in place through intragroup outsourcing, although in most jurisdictions exchange functions remain the responsibility of the individual exchange, subject to regulatory requirements, regardless of any intragroup outsourcing.

[12] See Section B on the Principle relating to self-regulation of the IOSCO of the Methodology For Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD562.pdf

[13] According to OECD's definition, a "Letterbox Company" is "a paper company, shell company or money box company, i.e., a company which has complied only with the bare essentials for organization and registration in a particular country and the actual commercial activities are carried out in another country" (OECD Glossary of Tax Terms).

Intragroup outsourcing can enhance the efficiency and scalability of trading venues within a group. They can reduce duplication, fragmentation, or complexity of processes and systems across different markets and products, as well as foster innovation and competitiveness of trading venues within a group providing access to new technologies, capabilities, or markets from other entities within the group. However, intragroup outsourcing may also create potential risks, namely:

- the creation of operational or financial dependencies or vulnerabilities for trading venues within a group, as they may rely on a single entity or source for their activities or responsibilities, and face disruptions or losses in case of failure or crisis;
- undermining the autonomy and accountability, as the individual trading venue may put a higher level of reliance over their activities or responsibilities if the outsourcing is carried out at the level of the same Exchange Group, and face conflicts of interest or influence from other entities within the group;
- the reduction of the diversity and adaptability of trading venues within a group, as they may lose their distinctive features or advantages, and face challenges or barriers to respond to changing customer needs or market conditions; and
- the application of lower standards in the selection and monitoring of the service provider, not ensuring the proper oversight at the individual trading entity level on the activities outsourced.

If extensive use of outsourcing occurs, meaning that the individual entity does not directly perform most of the exchange's regulatory functions, its autonomy and compliance with the minimum authorisation standards might be put at risk, with the creation of a letter-box company. This risk might be more pronounced especially in a Multinational Exchange Group context, where the parent company centralises the activities in a geographical location, but still has the possibility to export its services, establishing a subsidiary in the territory of another jurisdiction.

EXAMPLES OF TOOLKITS

Letter-box entities and outsourcing practices

As mentioned above, particularly in the EU, specific guidance has been developed requiring that any outsourcing or delegation arrangement from entities authorised in the EU27 to third country entities should be strictly framed and consistently supervised. Outsourcing or delegation arrangements, under which entities confer either a substantial degree of activities or critical functions to other entities, should not result in those entities becoming letterbox entities nor in creating obstacles to effective and efficient supervision and enforcement.

Additionally, examples of the legal and regulatory requirements as well as supervisory practices adopted by IOSCO jurisdictions to address the issues mentioned above include:

- rejection of extensive use of outsourcing and delegation arrangements to ensure adequate control procedures for outsourced activities. These jurisdictions usually also require the identification of a function specifically in charge to monitor the outsourcing and deliver adequate reports to the administrative and control bodies;

- requirement that the exchange shall operate with qualified staff and that key executives and senior members need to have effective decision-making powers and dedicate sufficient amount of time to fulfil their duties;
- requirements of a “statement of responsibilities” by those persons accepting a Senior Management Function, subject to the approval of the regulator, clearly setting out their role and responsibilities;
- identification of “institutional” core functions, strategic for the correct functioning of an Exchange, and thus of the entire economy of a jurisdiction, which cannot be subject to outsourcing, neither intragroup, nor towards external third-party providers, and
- review by regulators of dual reporting lines closely, including putting limits on them.

Financial resources

The trend of centralisation from an operational perspective might also have an impact on the management of financial resources within an Exchange Group.

The management of financial resources across the different business lines and subsidiaries of an Exchange Group might be impacted if one business line generates more revenue than others. For instance, cash pooling might be a technique used to balance funds within a group of companies, which can allow for the optimisation in the use of internal liquidity and can reduce the need for external financing. This practice, as well as other financial arrangements within an exchange or an Exchange Group, can offer advantages, such as improved liquidity management, lower financing costs, higher investment returns, and simplified cash flow forecasting. However, they may also involve some risks and challenges, such as concerns about diverting financial resources from the regulatory functions of an exchange to other business lines.

EXAMPLES OF TOOLKITS

Financial resources

In most IOSCO jurisdictions, exchanges are subject to certain requirements to ensure sufficient financial resources are allocated to the operation of the exchanges. In particular, examples of tools used by regulators to address the above issues, include requiring supervised exchanges to:

- submit audited financial statements or annual budget to regulators;
- maintain reserve funds, typically liquid assets, for continuous operation of the exchanges in case they incur losses, taking into account various risks that exchanges are exposed to;
- calculate various ratios to measure whether sufficient financial resources are maintained by the exchanges; and

- restrict the use of the regulatory funds received by the exchange, so that these can be limited to fund the regulatory operations of the exchange or to pay restitution and disgorgement to their clients.

Other activities

Across IOSCO jurisdictions, exchanges or their subsidiaries and affiliates may carry out other functions, including activities that may not be regulated within a specific jurisdiction in addition to regulated functions[14]. These activities may include:

- data processing and data analytics;
- information services providing access to various market data products and services;
- corporate trust services;
- development of indices and benchmark services such as the calculation, publication, and oversight of benchmark rates; and
- technology services including information security services.

Some Exchange Groups own global information providers, which are more akin to media companies and, as such, may not be subject to financial market regulation within certain jurisdictions.

The expanded scope of functions performed by exchanges, or within Exchange Groups, and their relationship with regulated activities may present certain risks and challenges from a regulatory perspective. When conducting a review of the regulatory framework, it is important to consider the evolution of the activities and business lines carried out by exchanges, or subsidiaries and affiliated entities of the Exchange Group, to adequately address risks posed to investor protection, financial stability, efficient and transparent markets as well as to market integrity.

For example, one risk arising from exchanges performing other activities is the potential for conflicts of interest to arise between these and the exchange functions. In the case of Multinational Exchange Groups, differences in regulatory perimeters and remits among jurisdictions may further complicate supervision, depending on whether a specific activity is regulated in each jurisdiction.

An additional risk may come from the fact that a client may think that a service provided by an exchange falls automatically under a regulation while it is not always the case.

Finally, certain risks relating to other activities, such as financial and cyber risks, might propagate to the regulated activities carried out by an exchange.

[14] Some of the functions listed may be regulated in other jurisdictions.

EXAMPLES OF TOOLKITS

Other activities

IOSCO jurisdictions generally require exchanges to have measures in place to identify and manage potential conflicts of interest.

Among them, the following legal and regulatory requirements as well as supervisory practices have been identified which relate to other activities performed by an exchange or Exchange Group which might serve as examples to other jurisdictions when implementing the good practices listed above at the beginning of this Section:

- requiring the establishment of additional financial resources and sufficient liquidity;
- requesting exchanges to ensure that clients clearly understand which activities are regulated and which are not;
- assessing the risks of non-regulated activities that may be posed to the regulated functions of the exchanges and their connection or similarity to the regulated activities;
- assessing the Exchange Groups' operational and regulatory risks as a whole;
- requiring the provision of information about exchanges' subsidiaries and affiliates in their initial application to register as exchanges and on an annual basis thereafter;
- requiring the identification of potential conflicts of interest between the regulated and non-regulated activities and limiting activities that exchanges can perform;
- establishing regulatory sandboxes to encourage innovation;
- monitoring new business development initiatives to assess potential impacts on the regulated functions of the exchanges, also from the point of view of the risk of monopoly power potentially being exercised; and
- only allowing for additional services based upon notification and/or approval by the regulator.

3.2. Supervision of Exchanges and other Trading Venues within Exchange Groups

Supervising an exchange or other trading venue that belongs to an Exchange Group, especially when entities within the Exchange Group perform different functions, may pose additional challenges. For example, it may be difficult to ensure adequate oversight at the level of the exchange and mitigate conflicts of interest, if, for instance, other subsidiaries fall outside of a jurisdiction's regulatory scope.

In relation to the risks and challenges connected to the supervision of exchanges within Exchange Groups, the IOSCO Principles[15] applying to regulators state that the *"Regulator should have adequate powers, proper resources, and the capacity to perform its functions and exercise its powers*" (Principle 3). In addition, the "*Regulator should have or contribute to a process to identify, monitor, mitigate and manage systemic risk, appropriate to its mandate*" (Principle 6) and "*should have or contribute to a process to review the perimeter of regulation regularly"* (Principle 7), ensuring that "*conflicts of interest and misalignment of incentives are avoided, eliminated, disclosed or otherwise managed*" (Principle 8).

PROPOSED GOOD PRACTICES ***Supervision of Exchanges and other Trading Venues within Exchange Groups***
In order to address these challenges, regulators could consider the following **good practice** identified across IOSCO jurisdictions: 4. Assessing whether exchanges under their supervision establish effective arrangements for market operations, including conflicts of interest management, corporate and operational governance and promoting transparency of trading. Regardless of the nature, size, or complexity of the trading venue, it is important that regulators consider monitoring whether supervised exchanges have in place processes to deal with the evolution of their corporate structure and the potential conflicts of interest arising from it.

EXAMPLES OF TOOLKITS

Supervision of Exchanges and other Trading Venues within Exchange Groups

[15] See Objectives and Principles of Securities Regulation, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD561.pdf

In order to implement the above good practice, regulators could consider the following examples of legal and regulatory requirements as well as supervisory practices used by a number of IOSCO jurisdictions to address issues related to Exchange Groups:

- requiring the Exchange Group to ensure that its exchange subsidiaries operate in a manner consistent with the public interest and are sufficiently funded;
- requiring, on a periodic or ad hoc basis, specific information related to the business of the Exchange Group;
- imposing corporate governance requirements, including independence arrangements between Exchange Group business units and the regulatory functions of the individual exchange;
- requiring the establishment of a Memorandum of Understanding (MoU) between the exchange and the other entities belonging to the same Exchange Group to mitigate the risk of lack of supervisory convergence/un-coordinated supervisory approach, the risk of information arbitrage, and the risk of the parent's decisions, which could affect the decisions of the exchange;
- limiting intra-group outsourcing, such as requiring its specific approval by the regulator, prohibiting delegation of responsibility, and outsourcing of core functions of the exchange;
- reviewing and/or clarifying the regulatory perimeter to ensure consistent regulatory treatment;
- imposing reporting and regulatory requirements on the Exchange Group as a whole, including with respect to governance, the management of conflicts of interest, and the allocation of resources to each exchange so that regulators have direct oversight over both individual exchanges as well as the Exchange Group;
- ensuring that substance requirements are met, such as sufficient physical presence at local level, monitoring the potential relocation of activities/functions from the individual exchange to the Exchange Group;
- ensuring that regulators are in a position to effectively supervise and enforce legal and regulatory requirements to Exchange Groups;
- considering the business model, in order to assess whether the exchange strategy is implemented in a manner ensuring the sound and prudent management of the individual exchanges in the Exchange Group and in the interest of the clients (e.g. members, participants, issuers, investors) they serve; and
- imposing restrictions on the ownership of the Exchange Group holding company as well as its shareholdings, for instance requiring prior communication to the regulator of a proposed acquisition, with a power to potentially oppose where there are objective and demonstrable reasons to believe that a healthy and prudent management of the market is put at risk.

3.3. Supervision of Multinational Exchange Groups

As mentioned above, several exchanges and Exchange Groups operate on a cross-border basis. Although cross-border activities may be regulated differently across IOSCO jurisdictions, exchanges and other trading venues may have some, or even a majority, of their members from other jurisdictions. Following mergers and acquisitions, exchanges and other trading venues may continue operating independently of foreign parent companies, or operations may be migrated to a global trading system infrastructure. Furthermore, an Exchange Group might have subsidiaries in different jurisdictions, operating as a trading venue or offering other services.

This may raise a number of supervisory and regulatory topics, as follows:

Differences in the legal frameworks

With cross-border activities, differences in legal frameworks are anticipated. Generally, individual exchanges and other trading venues that are owned by Multinational Exchange Groups are regulated and supervised by the relevant regulatory authorities in the jurisdictions in which they operate.

Cross-border supervision in case of outsourcing

Where functions of an exchange or trading venue are outsourced to entities in another jurisdiction, including to companies belonging to the same Exchange Group, additional considerations may arise. For example, it may be difficult for an exchange to monitor and control a foreign service provider.

It may also be necessary to consider whether there are any economic, social, legal, or political conditions that might adversely affect a foreign service provider's ability to perform certain services. To ensure appropriate transparency and oversight where a critical business service is outsourced (such as operation of the trading platform), including where the service provider is part of the same Exchange Group, the outsourcing considerations are subject to greater rigor. This may be the case where the outsourcing arrangement has the potential, if disrupted, to have a significant impact on the trading venue's business or on the activities of participants on the venue.

Regarding the international operation of Multinational Exchange Groups, cross-border cooperation is an important focus for IOSCO. The IOSCO Objectives and Principles of Securities Regulation also include the Principles for Cooperation in Regulation[16].

Specifically, IOSCO set out principles for regulators to: "*have authority to share both public and non-public information with domestic and foreign counterparts; … establish information-sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts; [and] … allow for assistance to be provided to foreign*

[16] *See* IOSCO, Objectives and Principles of Securities Regulation (May 2017), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD561.pdf.

Regulators who need to make inquiries in the discharge of their functions and exercise of their powers."[17]

Moreover, the supervision of exchanges that are owned by Multinational Exchange Groups has been extensively considered by IOSCO over the years[18].

PROPOSED GOOD PRACTICES ***Supervision of Multinational Exchange Groups***
In light of the above, regulators could consider the following **good practices**: 5. Having regard to domestic legal and regulatory requirements, making use of mechanisms such as ad hoc cooperation, MOUs, supervisory colleges, and regulatory networks as

[17] *Id.* at 7.

[18] In 2006, IOSCO made recommendations about fostering cooperation in supervising international Exchange Groups. Specifically, in the 2006 report (*See* IOSCO, Regulatory Issues Arising from Exchange Evolution, at Recommendation 4 -Nov. 2006, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD225.pdf.), IOSCO recommended that securities regulators be prepared to share relevant information concerning cross-border activity and highlighted its importance in cross-border supervision. Issues related to supervisory cooperation of exchanges and markets have been revised in 2010. In particular, IOSCO expanded on the 2006 recommendation in the 2010 Final Report on Principles Regarding Cross-Border Supervisory Cooperation (See IOSCO, Principles Regarding Cross-Border Supervisory Cooperation (May 2010), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD322.pdf.) and included a sample memorandum of understanding ("MOU"). The report described "cooperative mechanisms and suggest[ed] how regulators can enhance cross-border cooperation to better supervise regulated entities that operate across borders. It also suggest[ed] that regulators should explore opportunities to further collaborate to identify, assess, and mitigate emerging global risks." (See IOSCO Task Force on Cross-Border Regulation, at 2 (Sept. 2015), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD507.pdf.). Specifically, IOSCO recommended that authorities "consult, cooperate and be willing to share information to assist each other in fulfilling their respective supervisory and oversight responsibilities." The report also highlighted four mechanisms for sharing information between regulators: ad hoc cooperation, MOUs, supervisory colleges, and regulatory networks, each of which can provide different benefits to such cooperation. In June 2013, IOSCO created the Task Force on Cross-Border Regulation, and in September 2015, the Task Force released a final report describing the cross-border regulatory toolkit, a set of "tools which are commonly used by IOSCO members to regulate cross-border securities market activities." This toolkit included three tools—national treatment, recognition, and passporting—and briefly described certain cross-border exchange activities (IOSCO followed up on this report in 2019 with the publication of Market Fragmentation & Cross-border Regulation. See IOSCO, Market Fragmentation and Cross-border Regulation - June 2019, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD629.pdf.). Finally, in 2022, IOSCO explored the Lessons Learned from the Use of Global Supervisory Colleges, which presented the Follow-Up Group's work on deepening supervisory cooperation (See IOSCO, Lessons Learned from the Use of Global Supervisory Colleges - Jan. 2022, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD696.pdf.).

considered under previous IOSCO reports, to facilitate and support supervision and supervisory cooperation;

6. Monitoring developments in the structure and ownership of the exchanges and Multinational Exchange Groups to ensure that they continue to have the ability to supervise exchanges and trading venues that operate in their jurisdiction adequately.

EXAMPLES OF TOOLKITS

Supervision of Multinational Exchange Groups

In particular, among IOSCO members, the following examples of legal and regulatory requirements as well as supervisory practices are used by regulators to implement the good practices above:

- the stipulation of agreements of cooperation or Memorandums of Understanding to exchange information;
- the set up of an annual supervisory plan;
- consultations across authorities and coordination of activities;
- supervisory or enforcement-related assistance; and
- establishment of working groups or committees whereby they meet on a regular basis with other authorities in other jurisdictions to coordinate their actions with respect to a Multinational Exchange Group regarding supervisory matters of common interest.

In order to address the potential differences across jurisdictions:

- certain regulatory frameworks prescribe that individual trading venues (regardless of whether they are owned by Multinational Exchange Groups) are required to register in the jurisdiction where they intend to operate, establishing a specific branch or subsidiary;
- some regulatory frameworks allow the offering of market services by a foreign trading venue relying on the existing license in the home jurisdiction or require a specific additional domestic clearance. Regulators in some jurisdictions that allow foreign trading venues to operate on a cross-border basis have specific processes to grant licenses that may differ from one regulatory body to another;
- both the above options might be available in some jurisdictions.

In the implementation of the above approaches:

- some regulators only grant licenses to foreign trading venues when they have a cooperation agreement in place with the domestic regulator. These agreements specify what types of information must be shared, as well as the obligation of regulators to inform each other when a trading venue has been sanctioned for any violations. In some jurisdictions, an “equivalence” assessment is also carried out by the host authority to activate recognition regimes;
- some regulators may also have different processes based on whether the foreign trading venue operates through a domestic branch, subsidiary, or remotely. In some jurisdictions, foreign trading venues that operate through a domestic branch or a subsidiary would have to adhere to the regulations that apply to domestic trading venues. For those operating remotely and exempted from domestic regulations, the regulator might nevertheless consider the regulatory framework of the trading venue’s home jurisdiction as well as consider the level of cooperation between both regulators, before allowing cross-border operation.

Regarding cross-border ownership, the following tools are used by regulators:

- review or approval of changes in control of an exchange;
- non-objection procedures after notification by the exchange.

In both cases, a number of relevant factors are checked in some IOSCO jurisdictions (fit and proper requirements, conflict of interest, assessment of the process of acquisition, the availability to the public of information on relevant shareholders, etc).

Chapter 4 - Conclusions

The dynamic transformations within the realm of exchanges, notably marked by the widespread demutualization/non-mutualization, adoption of for-profit structures, electronification and diverse business models, have incentivized these entities to shift towards competitive, cross-border operations and have led to the emergence of Multinational Exchange Groups. The expansion into various business lines, including data services and technology provision, reflects a response to market competition, technological advancements, and regulatory changes.

While these changes create opportunities for increased efficiency and revenue diversification, they also introduce new regulatory challenges, such as preserving the independence of the regulatory function, potential conflicts of interest and organizational complexities. The regulatory considerations and good practices outlined in the Report emphasize the importance of adapting supervisory approaches to address these evolving market structures, helping to ensure the continued integrity and efficiency of financial markets in the face of ongoing developments and globalized operations while maintaining the regulatory independence of member jurisdictions.

Annexes

A. Summary of respondents to the surveys

Regulators responses to C2 Market Structure Surveys	
Jurisdiction	**Authority**
1. Abu Dhabi	Financial Services Regulatory Authority (FSRA)
2. Australia	Australian Securities and Investment Commission (ASIC)
3. Brazil	Comissão de Valores Mobiliários (CVM)
4. Canada	Ontario Securities Commission (OSC), Autorité des marchés financiers (QAMF), and Canadian Investment Regulatory Organization (CIRO)
5. Dubai	Dubai Financial Services Authority (DFSA)
6. France	Autorité des marchés financiers (AMF)
7. Germany	Federal Financial Supervisory Authority (BaFin)
8. Hong Kong	Securities and Futures Commission (SFC)
9. India	Securities and Exchange Board of India (SEBI)
10. Italy	Commissione Nazionale per la Società e la Borsa (Consob)
11. Japan	Financial Service Agency (JFSA)
12. Kuwait	Capital Markets Authority (CMA)
13. Malaysia	Securities Commission (SC)
14. Mexico	Comisión Nacional Bancaria y de Valores (CNBV)
15. Netherlands	Autoriteit Financiële Markten (AFM)
16. Nigeria	Securities and Exchange Commission (SEC)
17. Romania	Financial Supervisory Authority (FSA)
18. Saudi Arabia	Capital Market Authority (CMA)

19. Singapore	Monetary Authority of Singapore (MAS)
20. Spain	Comisión Nacional del Mercado de Valores (CNMV)
21. Sweden	Finansinspektionen (FSA)
22. Switzerland	Financial Market Supervisory Authority (FINMA)
23. Turkey	Capital Markets Board (CMB)
24. United Kingdom	Financial Conduct Authority (FCA)
25. United States	Securities and Exchange Commission (SEC)
Market Participants responses to C2 Market Structure Survey	
Organization	
1. B3 S.A. – Brasil, Bolsa, Balcão ("B3")	
2. Cboe Global Markets (Cboe)	
3. Korea Exchange	
4. Singapore Exchange	
5. Six Group	
6. World Federation of Exchanges (WFE)	

B. Previous IOSCO Reports and recommendations

A number of earlier IOSCO reports have addressed many of the issues discussed in this report.

The 2006 *Regulatory Issues Arising From Exchange Evolution Report* (the 2006 Report)[19] looked at the demutualization of exchanges, the role of exchanges as for-profit organizations, the regulatory responses to these changes and set out some specific recommendations for regulators. Traditionally, exchanges were member owned and were responsible for the regulation of both the markets and of their members. However, in the years up to 2006, most major exchanges converted into for-profit companies with broader shareholding, rather than membership ownership. A report was therefore developed to look at consequences of exchanges as for-profit entities operating in a more competitive marketplace, the restructuring of their operations and the implications for regulatory responses. By 2006 most regulatory authorities had sufficient experience in addressing the issues raised by

[19] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD225.pdf

demutualization and IOSCO therefore launched a project to understand the implications. Following a consultation, the 2006 Report made a number of recommendations[20.] . Given that the developments anticipated in the 2006 Report have been borne out in recent years and considering that the 2006 Report itself noted the need to monitor ongoing developments, nearly 20 years hence, it is appropriate to review the recommendations this 2006 Report contained.

The 2011 report "*Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency*"[21] (the 2011 Report) looked at the technological change that has occurred relating to the participants, how they connect to the markets, and the markets themselves, and the impact of these changes on the capability of markets authorities to supervise markets effectively.

The 2013 report on "*Regulatory Issues Raised by Changes in Market Structure*"[22] (the 2013 Report) updated the 2001 report "*Transparency and Market Fragmentation*"[23] (the 2001 Report) and analysed the evolution of secondary market structure, and the effect, of market fragmentation on the price formation process, market efficiency and integrity. This report also identifies issues and risks posed by developing market structures and establishes four recommendations[24].

[20] In particular:

- ***Recommendation 1*** *– Regulators should have adequate arrangements to enable them to keep the changing market environment under review and 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 business and practices.*
- ***Recommendation 2 –*** *Regulators should assess whether 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.*
- ***Recommendation 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.*
- ***Recommendation 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.*

The last recommendation discussed the issue of potentially increasing consolidation and concentration as a result of market forces. Specifically, competition would encourage creation of the transnational group with the aim of expanding their business and achieving economies of scale. Secondly, competition would encourage firms to diversify into new areas, and in particular "non-regulated" activities or expand into services outside the direct traditional regulatory scope of exchange activities. Thirdly, competition could result in cross-border business development through the expansion of remote membership, the establishment of new market facilities in foreign jurisdictions and mergers with, or acquisitions of, exchanges in other jurisdictions.

[21] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD354.pdf

[22] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD431.pdf

[23] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD124.pdf

[24] In particular:

- **Recommendation 1.1**: "*Regulators should regularly monitor the impact of fragmentation on market integrity and efficiency across different trading spaces and seek to ensure that the applicable regulatory requirements are still appropriate to protect investors and ensure market integrity and efficiency,* *including with regard to price formation, bearing in mind the different functions that each trading space performs."*

C. Feedback Statement

Q1. Do you agree with the analysis provided and the trends identified in Chapter 2?

Detailed summary of the feedback

Respondents generally agreed with the analysis and trends provided in Chapter 2.

Demutualization of exchanges and factors of exchanges' evolutions

Most respondents agreed that exchanges have been demutualized and are operating as for-profit organizations. Similar to IOSCO's observation, some respondents stated that key drivers of the demutualization were economic and regulatory factors such as cost reduction, revenue diversification, technological advancements, mergers and acquisitions, and increased competition. One respondent stated that changes in information technology and introduction of new competitors led to the demutualization to enable exchanges to finance rising capital costs. Another respondent also stated that, with increased competition, substantial investments are needed in technology, but mutualized exchanges do not always have capacity for such investments.

A number of respondents noted that there are benefits to the demutualization of the exchanges. The benefits include increased focus on customers, compliance, regulation, rule enforcement, and transparency for investors, which lead to deep and liquid markets, low trading costs, and faster access to markets. Additionally, one respondent stated that the demutualization contributed to innovation and efficiency.

Several respondents stated the demutualization did not have an impact on the management of conflicts of interest, and potential conflicts of interest identified in the Report are not unique to for-profit exchanges.

Multiple business lines

Respondents acknowledged that exchanges, in addition to the trading and listing businesses, may also have businesses such as market data services and technological solutions. Some respondents stated that the market data services are inherent to the businesses of exchanges, while other respondents stated that those services should be considered ancillary.

Some respondents stated that revenue from market data services has grown significantly, but one respondent said the relative revenue has not in fact risen considering the increase was due to mergers and acquisitions, accounting changes, and other events.

Some respondents stated that there has been a trend toward centralization and optimization of support services in information technology and compliance and diversification of business lines beyond core functions, such as developing proprietary technology and selling data services, and diversification of businesses was a risk mitigation measure to be less dependent on trading and listing revenues.

International business strategy and Multinational Exchange Groups

Respondents observed that Multinational Exchange Groups continue to acquire or invest in other exchanges worldwide and leverage strategic partnerships to enhance technological and market capabilities.

Respondents stated that geographical diversification allows exchanges to capitalize on globalization of the securities industry. Multinational Exchange Groups with broad footprints can leverage effective practices across broader corporate groups and engage in and learn from public policy discussions across jurisdictions.

One respondent noted that the use of a common trading platform by multiple exchanges belonging to the same Multinational Exchange Groups lowers barriers to entry to market participants because once they are onboarded to one exchange, such participants can also be seamlessly onboarded to other exchanges within the same group.

IOSCO's response

IOSCO acknowledges that there were various factors that would have led to the demutualization of exchanges and that there are both benefits and risks resulting from this development. The focus of the Report was on potential conflicts of interest that may exist in the operation and supervision of exchanges and exchange groups instead of the conflicts arising from the demutualization. The risks and challenges are discussed in Chapter 3 of the Report.

IOSCO amended the Report to reflect feedback that rising capital costs in technology and increasing competition were some of the factors that led to the trend of the demutualization.

Q2. Have you identified other major trends regarding the changes in the business models of exchanges?

Detailed summary of the feedback

Frequently mentioned trends from respondents are technological advancements, increased competition (some respondents say its significance is understated in the consultation report), emphasis on sustainability and the unlevel playing field between regulated exchanges and other entities like single dealer platforms, systematic internalisers and dark trading platforms that are considered to be less regulated and less transparent. There are diverging views on retail participation depending on geographical location whether it is increasing or decreasing. Access to market data is also mentioned as essential for the level playing field. One respondent argues that the increasing cost of market data acts as barrier to entry to new market participants.

One respondent observes trends like diversification of business lines and services, regulatory and operational changes, technological advancements and innovation, market inclusivity and development, strategic alliances, global integration, focus on sustainability, and increased competition and market dynamics. These trends indicate a shift towards more inclusive, technologically advanced, and globally integrated exchanges, with a strong emphasis on sustainability and innovative financial products.

While one European respondent says the requirement for demutualized exchanges to maximise profits has had a negative impact on the efforts of European markets to stimulate retail participation (particularly in the listed derivatives market), two respondents from India and Brazil observe a trend towards higher retail participation due to increasing accessibility of the market to investors at large and an increasing focus on financial education and the development of products and services that are accessible and appealing to this public. One of these respondents adds that the emphasis on retail is becoming important in the context of emerging non-regulated products that often lack the transparency and safeguards that exchanges provide and suggested that such differences in rules and regulations between listed and non-listed products undergo a more rigorous assessment by financial market regulators.

One respondent criticizes the single dealer system that some exchanges in Europe have adopted to attract retail flow. This respondent stated that it fails to see how the lack of competition in this system serves the interest of investors and that such a market model is not compatible with the objectives of securities regulation established by IOSCO.

One respondent argues that ongoing increases in the price of market data creates an extremely high-cost base for participating in these markets and acts as a barrier to entry to new participants. Another respondent notes that access to market data is essential and that maximising public access to such data and enabling access among the greatest number of participants, at reasonable speed and reasonable cost, is therefore critical to levelling the playing field in the markets.

Respondents observe that the role of competition is understated in the consultation report. According to one respondent, the lighter regulatory burden of some competitors creates a challenge for exchanges. In this context, another respondent notes that the majority of trading is taking place on less lit or dark platforms and via internalisation. Another respondent points out as a recent trend of concern the rise of entities claiming to be regulated exchanges yet operating in an unregulated, non-transparent manner and broker/firm platforms that are now siphoning off nearly 50% of equities volumes in some jurisdictions. This is echoed by other two respondents noting that competition with less regulated platforms like systematic internalisers and single dealer platforms leads to uneven playing fields and is driving trading volume towards less regulated platforms.

Another respondent observes that exchanges are investing in new technologies like AI, big data, and cloud computing to identify new opportunities and improve their business models. They are also forming strategic partnerships with technology companies.

Finally, a respondent argues that increased competition, revolutionary changes in information technology, and capital investments necessary to operate today's technology make scale more important than in the past. It is therefore not surprising that exchanges shifted to become part of larger organisations, increasing the number of Exchange Groups and Multinational Exchange Groups.

IOSCO's response

IOSCO acknowledges the additional factors raised by the respondents to the consultation report. However, some of the trends that respondents mention most frequently, like increased competition and technological advancements, are already included in IOSCO's analysis (see page 9 of the consultation report).

As regards the provision and cost of market data, the report already includes an analysis of market data on page 10.

Considering the perceived unlevel playing field between exchanges and other trading venues, this aspect of competition has been added to the final report.

Finally, an additional factor that comes forward is that the trends that have been identified require higher capital investment, which makes scale more important than in the past.

Q3. If yes, what other factors do you think might have contributed to the additional trends identified?

Detailed summary of the feedback

Technological advancement, the increasing role of competition (in particular with less regulated entities like dark platforms and systematic internalisers), and the need for higher capital investment due to improved technology are mentioned as the main other factors that have contributed to the additional trends identified.

IOSCO's response

IOSCO notes that the responses to this question broadly reflect the same factors as mentioned in response to question 2, like the increasing role of competition, technological advancement, and the need for higher capital investment.

Q4. Do you agree with the risk and challenges identified in Chapter 3?

Detailed summary of the feedback

Overall, respondents agreed with the risks and challenges identified in the report.

Nevertheless, the feedback highlighted some points with regard to certain aspects of the report, as outlined below.

Particularly, one respondent stated that demutualization per se should not be considered as a cause of any of the risk identified in the report.

Other feedback pointed out that the report identifies risk on the basis of a broad cross-jurisdictional approach. In this respect, in respondents' view, the national legislators must assess the identified risks and whether they are not already being addressed.

Additional feedback, while considering that the risks identified in the report are currently adequately addressed by Exchanges and Regulators, stated that there are differences in the level playing field for dark platforms and systematic internalisers. In this respect, respondents also expressed concerns about the rise of entities operating in an unregulated, non-transparent manner and broker/firms' platforms, which are not considered within the report.

Finally, one respondent stated that the risks identified in the report are mitigated to a considerable extent, and that currently there is no evidence that the risks and challenges identified within the report are not well managed by Exchanges, Exchange Groups, or Multinational Exchange Groups, proposing to indicate it clearly in the Final Report.

<u>Organization of Exchanges and Exchanges Groups</u>

Several key points and additional considerations within the feedback received were devoted to the risks related to the organization of Exchanges and Exchange Groups.

The main points identified by respondents include conflicts of interest, compliance with various regulatory frameworks, and operational continuity:

- As regards the importance of governance structures within Exchange and Exchange Groups, in respondents' view, accurate governance arrangements are essential to ensure proper organization of Exchanges not only in case of the centralisation of business functions, but also in case of the development of new business segments. The responses identified good corporate governance practices as beneficial for both stand-alone exchanges and groups, especially in case of cross-border operation.

- Furthermore, according to the feedback received, consolidation can be beneficial for risk management also in the case of domestic groups with vertical silos (where trading, clearing, and settlement take place within the same group). Particularly, respondents observed that - considering groups that operate exchanges within a single jurisdiction - it may not be economically feasible nor efficient to maintain separate management and Board structures for each Exchange within the group.
- Considering the dual hatting practices, one respondent noted that adequate internal and external supervision, and dedicated procedures are crucial to manage conflicts of interest. Other respondents suggested the need for regulatory standards that provide clarity on decision-making processes, financial resources, and trading suspensions, without over-regulating the sector.
- With regard to the centralization of functions and increased intragroup outsourcing, one respondent supported the idea of appropriately considering the operational dependencies between entities within the same group, as well as the potential lack of clarity around reporting lines. In this respect, the risk of outsourcing of core functions of the Exchange should be appropriately addressed, regardless of intra-group or external entities.
- On multiple reporting lines and independence of regulatory functions, responses stated that Exchanges are capable of ensuring an independent regulatory function without entirely wholly owned subsidiaries with a separate management and board. In this sense, according to respondents, the presence of multiple reporting lines do not compromise the independence of an Exchange's regulatory function, and all potential conflicts should be managed appropriately, without broad limitations on exchange activities.
- Another respondent, while supporting the general trends identified in the report, indicated that there might be minor risks not identified in the report, suggesting to address them through additional toolkits, such as the provision regarding periodic reports to independent directors as a complementary toolkit to avoid conflicts of interest, as also reported under Q7 below.
- Other feedback, while agreeing that letter box entities might constitute a potential risk for exchanges' management, notes that most toolkits mentioned in the report with regard to management bodies, are already implemented in IOSCO jurisdictions, including the EU countries. However, pushing for separate operational structures will add duplicative cost which could undermine competitiveness.

<u>Supervision of Exchanges and other Trading Venues within Exchange Groups</u>

One respondent observed that the report is mainly based on the view which considers rxchanges that are part of Exchange Groups to be subject to a higher level of scrutiny than stand-alone Exchanges.

Another response pointed out that too prescriptive toolkits may be disruptive to exchange business models, as they would not allow local regulators to account for the unique characteristics of the markets.

<u>Supervision of Multinational Exchange Groups</u>

With regard to the supervision of exchange groups, and particularly in case of cross-border operation, respondents highlighted other risks such as the significant influence brokers have in the Exchange business structure, and the potential regulatory arbitrage when considering outsourcing of services to providers located in jurisdictions with lower regulatory standards. Furthermore, feedback also identified the innovation challenges related to obtaining regulatory approval of products, platforms and operation procedures in the various countries in which Exchanges provide services, due to the diverse regulatory framework.

Finally, another respondent observed that the risk of outsourcing core functions of an exchange is the same in case of both intragroup or external outsourcing. In this respect, limiting intragroup outsourcing would not reduce this risk, whereas it would be instead more important to assess and manage the outsourcing risk appropriately.

IOSCO's response

IOSCO acknowledges the points of attention and considerations highlighted by the responses to the consultation, which nevertheless agree with the risks and challenges identified in the report.

Broadly speaking, the report does not consider demutualization as the unique cause of the risks identified, but several trends are included within Chapter 2 of the Final Report, and identified as potential causes of the risks and challenges represented under Chapter 3.

Considering the feedback highlighting that the risks identified in the report are already mitigated to a considerable extent, while being aware that Exchanges and trading venues already implemented systems and procedures to mitigate those risks, IOSCO's work is aimed at providing supervisors with a set of common practices to improve risk mitigation and help supervisory practices.

As regards the comments related to the organization of Exchanges and Exchange Groups, their supervision by Competent Authorities, and the multinational dimension of groups, IOSCO notes that most indications provided within the responses are already included in the Report within Chapter 2 and 3. In this respect, nevertheless, considering the point of attention with regard to the potential unlevel playing field between lit and dark trading platforms, this additional point of attention has been inserted in the Final Report.

Finally, considering the risks associated with outsourcing of critical operational functions, and particularly of core functions of Exchanges, IOSCO believes that both intragroup and external outsourcing should be assessed and managed appropriately by Exchanges. For this reason, the good practices contained in the Final Report do not differentiate explicitly between intra-group and external outsourcing, while within the toolkits the possibility of limiting intra-group outsourcing is contemplated as a supervisory measure implemented in certain jurisdictions (which would practically mean the existence of a dedicated authorization regime, or prohibition to the delegation of responsibility).

Q5. Do you think there are other risks and challenges that have not been identified?

Detailed summary of the feedback

Overall, respondents found the identified risks and challenges to be sufficiently comprehensive. However, some suggested additional risks that could be considered.

Monopoly and Oligopoly

One respondent noted the potential for a monopoly in jurisdictions with only one exchange, particularly when these exchanges expand their activities to non-core functions, using their privileges to create an unfair market. Another respondent expanded on this, pointing out that single exchange group operating within a country could also reduce competition. In addition, the respondent raised concerns about global exchange oligopolies resulting from strategic associations between exchanges, which could also impact competition.

Technology and Cybersecurity

One respondent mentioned the challenge of maintaining stability and security as innovations progress faster than regulation and effective supervision.

Respondents also raised that cyberattacks and data protection issues were significant concerns, as rapid technological advancements can lead to vulnerabilities such as cyber threats and system failures.

Other Risks

Other respondents highlighted a range of additional risks, including:

- Risks associated with the increasing number of trading platforms, leading to liquidity fragmentation and a lack of transparent price formation.
- Geopolitical risks and political tensions between countries can significantly affect market stability and exchange operations, leading to increased market volatility.
- Reputational risks can significantly damage an exchange's credibility. Business risks stemming from market volatility, economic downturns, and competitive pressures can impact the viability and performance of exchanges.
- Effective operations are critically dependent on managing talent, succession planning, and maintaining a strong organizational culture.
- Changes in the macroeconomic environment and legislation may impact strategic planning, reactionary decision-making, and the attractiveness and legality of listing on certain exchanges.

IOSCO's response

IOSCO recognizes the concerns regarding potential monopolistic risks in the exchange industry. We note that various jurisdictions have regulatory requirements specifically designed to address the risks of monopoly and oligopoly, ensuring that markets remain competitive.

IOSCO acknowledges concerns about cyberattacks and data protection, as technological advancements inherently introduce cybersecurity and system vulnerabilities. While these cybersecurity risks are critical, they fall outside the scope of this paper and are addressed in other IOSCO work. IOSCO remains committed to supporting its members in enhancing cybersecurity and adapting to emerging technological challenges.

Additionally, IOSCO acknowledges a range of other risks highlighted by respondents. However, these risks, while valid, are not exclusive to or a direct result of changes in the organisation of exchanges and exchange groups.

Q6. Do you have comments on the proposed good practices identified in the boxes in Chapter 3?

Detailed summary of the feedback

In general, there was support for the six good practices outlined in the Consultation Report. Supporting respondents highlighted the comprehensiveness of the identified good practices and the related toolkits in addressing critical aspects related to the effective functioning and supervision of exchanges.

However, several respondents reported points of attention with respect to the general application of the good practices, to the content of the good practices themselves, and to the toolkits presented.

Considering the overall approach related to the good practices identified in the Report:

- most respondents reported the importance of high-level provisions instead of prescriptive rules, leaving room for a calibrated approach which considers economic feasibility and country-specific legal and economic frameworks. In this respect, one respondent highlighted that the Report should recognize the different organizational structure of exchanges, and that the application of good practices should consider the nature of the exchange organization.
- Another respondent pointed out the need for outcome-focused provisions, instead of specified requirements.
- Other feedback mentioned the need for supervisory approaches to be designed not to impose unduly complex, duplicative, or overly burdensome obligations.
- Furthermore, one respondent stressed the importance to extend the identified good practices to all types of trading venues and financial instruments, instead of limiting them to equity exchanges.
- Other respondents underlined the importance of the principle of proportionality in the operational application of the good practices, with an implementation process focused on established supervisory goals in filling the possibly identified regulatory gaps, and the need to enhance substance over form.
- Additionally, feedback received highlighted the need to recognize the operational differences associated with the exchanges being part of Groups.
- Finally, one respondent reported that certain toolkits presented in the Report might benefit from clarification and explanation on their practical implementation (i.e. in light of the evolution of technological environment such the use of AI and other innovations in the internal processes of exchanges).
- Moving then to the content of each good practice indicated in the Report, most respondents expressed their feedback with regard to the organizational structure of exchanges, supervisory approaches with respect to exchange groups (both domestic and cross-border), and mechanisms to ensure proper supervision and monitoring of exchanges with regard to conflicts of interest, the evolution of their proprietary structure, and outsourcing practices.
- Considering the organizational structure of the exchanges and the need for independent decision-making structures aimed – above all – at mitigating potential conflicts of interests within Groups, while agreeing on the high-level purpose of the identified good practices, respondents raised concerns on the toolkits presented. Specifically, the feedback received stressed the need to consider the varying sizes and business models of exchanges, and to distinguish between domestic and multinational exchange Groups when prescribing separate management and Board structures for exchanges being integrated in a Group, considering thus their economic feasibility and the business environment they face. One respondent particularly expressed disagreement with the provision requesting independent directors serving on no more than one board within an Exchange Group. Two respondents indicated strong disagreement with the requirement related to the independence of the regulatory function of exchanges when being part of a group, as alternative measures might be implemented to manage conflicts of interest and protect the independence of the regulatory function. Specifically, the feedback pointed out that the good practices under consideration shall not prevent exchange groups' ability to

centrally develop and manage aspects of their operation, by promoting efficiencies and reducing costs. Furthermore, in respondents' view, outsourcing of certain aspects of exchanges groups' organization might also ensure an improvement of exchanges groups' compliance with regulatory standards consistently across all its entities, through the maximization in the distribution of knowledge across the organization.

- One respondent proposed to specify the recognition of group structures with a matrix organization, even across multiple jurisdictions, whereas another respondent emphasized the need to arrange Board structures and compositions according to the maximization of the relevant expertise, thus being able to comply with regulatory obligations while delivering economic efficiencies.
- With respect to outsourcing and the need to maintain an autonomous decision-making process, one respondent highlighted that while institutional and strategic functions cannot be outsourced because of their role in the economic framework of many jurisdictions, the outsourcing of other functions might represent a risk-mitigating strategy in some circumstances.
- Finally, one respondent questioned the toolkit imposing limits to the activities that an exchange can perform other than its regulatory role, within the practices related to the organization of exchanges. Many market operators are for-profit organizations in many jurisdictions and engage in non-regulatory matters to a certain extent, to maintain their competitiveness. The respondent therefore disagreed with the view of imposing limits on non-regulatory exchanges' activities, as it would require a fundamental re-evaluation of exchanges' role in the financial ecosystem.

IOSCO's response

We acknowledge the differing views regarding the overall approach to the good practices presented in the Report, as well as on the provisions expressed and their related implementation in the toolkits.

The good practices set out in this Final Report are designed to identify regulatory, supervisory and other legal approaches that are being used in various jurisdictions, and to be high-level and outcome-focused, rather than granular and prescriptive, to allow for sufficient flexibility in their application across different jurisdictions. Therefore, considering each domestic legal and regulatory requirement, as well as economic situation, implementation of any of the identified good practices falls under the remit of each Competent Authority. In this respect, to provide further clarity on the application of the good practices by the Regulators, the Final Report has been amended to specify that each Competent Authority could identify the most appropriate tools to potentially implement, considering the specificity of the different legal frameworks in force within each jurisdiction.

As regards to whether the good practices and toolkits may be relevant to other trading venues and financial instruments, the executive summary already allows for the application of the principles contained in the good practices and the operational tools included in the toolkits also with respect other types of trading venues and other classes of financial instruments.

Furthermore, considering the disagreements represented by respondents on the toolkits indicated in the Report, these provisions represent supervisory practices already in place in the IOSCO jurisdictions, as the toolkits are examples of rules, regulations and other supervisory practices in place in certain IOSCO jurisdictions. Therefore, these parts of the Final Report have not been amended as a result of the consultation. They have been nevertheless enriched with the additional examples proposed by respondents, as detailed under Q7 below.

As regards the need for independent decision-making structures within exchanges' organization, both with respect to Board structures and Regulatory functions, while acknowledging that some respondents disagree with the toolkits presented, other respondents found identified tools helpful. Considering the role of the regulatory functions for the exchanges, while being aware that outsourcing of certain operational aspects might be crucial for achieving cost efficiencies, the provision regarding the independence of the core functions is mainly aimed at safeguarding exchanges' ability to manage conflicts of interest. Nevertheless, IOSCO recognises that the good practices in this Final Report should not prevent Exchange Groups from the ability to centralise certain operational functions by promoting efficiencies and reducing cost provided that this centralisation does not impair the Exchange Groups' compliance with regulatory standards across all its entities.

For this reason, IOSCO slightly amended the Final Report text, to consider that exchanges may centralise certain operational functions within Exchange Groups under certain circumstances and conditions as an alternative option.

Q7. Do you have suggestions regarding other good practices and/or examples of toolkits to be included?

Detailed summary of the feedback

Overall, respondents found the good practices comprehensive to address the identified risks and challenges related to the evolution in the governance of exchanges and their consolidation within Groups. In this respect, one respondent pointed out the need to further clarify and explain the practical implementation of the good practices and related toolkits identified in the Report, especially when considering the evolution of the technological landscape.

Some respondents suggested additional good practices and toolkits that could be considered. Specifically, respondents highlighted the following items, to be considered:

- A Code of Conduct for Directors and, broadly speaking, members of various Statutory Committees of exchanges, and a minimum number of Public Interest Directors within the governing board of the exchanges, with at least one public interest director having the requisite qualification and experience in each of the areas of capital markets, finance and accountancy, legal and regulatory practice, and technology.
- Introduction of the definition of Key Management Personnel (KMPs), mapping employees' activities and their relative hierarchy within the exchange functioning, for the purposes of clearly delineating and segregating the roles and responsibilities of such identified KMPs within each function.
- Identification of core and critical functions of exchanges which cannot be outsourced, such as the regulatory function (both within the Group or to external third-party providers).
- A set of requirements for the prior revision of all new business initiatives of the national exchanges, to ensure fairness in the market, including, but not limited to, the non-usage of monopoly power or its privilege to block other players, having a proper corporate governance, Risk Management, and Internal Audit functions.
- Strengthen relationships between exchanges and regulators also by establishing regulatory sandboxes, thus facilitating exchanges to test new technologies and business models under controlled environments, with the goal of maintaining corporate structures aligned with regulatory standards.

- A differentiation between intra-group outsourcing and outsourcing to third parties external to the Group, and update of the legal frameworks to reflect market approaches similarly to the ones already in place for other entities of the financial sector.
- The implementation of specific checks on exchanges' listing applications, to help mitigate potential conflicts between the commercial and regulatory elements of an exchange.
- Provisions regarding periodic reports from the management to independent directors with respect to the areas with possible conflicts of interest, as a complementary toolkit to avoid conflict of interest.

IOSCO's response

The text of the Final Report contains some amendments to reflect the request of further clarifications for the practical implementation of the principles expressed, as highlighted in the feedback received.

As regards the proposals for additional good practices and related examples of supervisory toolkits, IOSCO notes that many of them are applicable in certain circumstances, and thus amended the text of the Final Report accordingly.

Specifically, with regard to the provisions related to a Code of Conduct for Directors and members of the various Statutory Committees of exchanges, and the presence Public Interest Directors within the governing board of the exchanges, these supervisory practices have been added to the toolkit box for the item related to the Management of Exchanges, together with the provision of periodic reporting to independent directors as a complementary toolkit to avoid conflict of interest.

The mapping of KMPs and related tasks in terms of importance in the functioning of the exchange has been added within the examples of supervisory tools to be taken into consideration by regulators with regard to the multiple reporting lines and the independence of regulatory functions.

The supervisory toolkits related to outsourcing practices, and mitigation of potential conflicts of interest, have also been updated with the clarification that some jurisdictions might consider the identification of "institutional" core functions, strategic for the correct functioning of an exchange, and thus of the entire economy of a jurisdiction, which cannot be subject to outsourcing neither towards entities pertaining to the Group, nor towards external third-party providers.

With regard to the prior revision of all new business initiatives of the national exchanges, a clarification has been added within the toolkit box related to other activities performed by exchanges. The establishment of regulatory sandboxes has been also added to this section.

Finally, considering a differentiation between intra-group outsourcing and outsourcing to third parties external to the Group, and the related updates to the legal frameworks, the latter should contemplate a set of safeguards enabling exchanges to ensure the continuity and quality of the services provided, in case the latter are provided by a third-party. Outsourcing practices, in fact, both intra-group and with respect to entities external to the Group, expose exchanges to a wide variety of risks, for which mitigation measures should be implemented. Regulatory requirements as described in the toolkits within the Final Report are therefore aimed at mitigating the exposure of exchanges, and broadly speaking, trading venues, to risks associated with outsourcing practices, and – in consequence – designed to help to ensure orderly trading and an adequate level of investor protection, and ultimately, the stability of the financial sector. In this respect, principles regarding outsourcing practices are applicable to both intra- and extra-group outsourcing, since intra-group outsourcing does not guarantee per se the reduction of risk exposure for exchanges. Thus, in IOSCO's view at this stage there is no need to differentiate between intra-group and external outsourcing from the point of view of the supervisory good practices, while recognizing within the toolkits the specific attention paid in certain jurisdictions to intra-group outsourcing practices. In this respect, the identification of "institutional" core functions which cannot be subject to outsourcing - as indicated above – shall be applicable to both intra-group and external outsourcing.

General Comments on the Consultation Report

Detailed summary of the feedback

Application of Good Practices and Toolkits

Many respondents highlighted the need to avoid a "one-size-fits-all" approach in the implementation of good practices. Instead, differentiation based on the size, scale, and complexity of the exchange, as well as specific features of the jurisdiction and economy in which the exchange operates, should be considered in defining good practices. Respondents proposed that the good practices should provide sufficient flexibility and avoid duplicative requirements across the existing legal and regulatory regimes.

One respondent noted that the Report should include risks and trends as well as good practices that are applicable not only to equity exchanges, but also other types of trading venues and financial instruments.

Another respondent pointed out that the European market structure is not sufficiently covered in the Report. Specifically, the respondent highlighted that the fact that exchanges in the EU already operate under specific regulatory environments setting organizational requirements should be reflected in the Report so that IOSCO's recommendations are relevant and applicable to the exchanges in the EU. Moreover, the respondent argued that, within the EU, many operational constraints and risks currently arise from divergent supervision rather than a lack of regulatory instruments included in the legislation.

Another respondent emphasized the need to distinguish the good practices related to Exchange Groups from the practices applicable only to exchanges. Specifically, the respondent stressed that supervisory coordination in respect of Exchange Groups should be implemented with a single supervisor, which would allow further integration and efficiencies in the regulation of Exchange Groups.

Overregulation and Different Regulatory Requirements

Some respondents were concerned about the unlevel playing fields in the application of regulatory requirements among different trading platforms.

A respondent raised that there are significant competitive pressures on exchanges in jurisdictions with regulations imposed on exchanges compared to other trading platforms such as systemic internalisers and single dealer platforms. It stated that these disparities could lead to an uneven playing field in which trading volumes are shifted from exchanges to less regulated platforms.

Another respondent added that less regulated, broker-led trading venues, such as multilateral trading facilities and systemic internalisers, might operate at a loss to pressure competitors to lower their fees. This could potentially lead to conflicts of interest between providing best execution for clients and seeking profits for broker firms.

The risk of regulatory arbitrage was highlighted, especially for exchanges within an Exchange Group that might outsource core activities or rely on licenses from jurisdictions with lower regulatory standards. Respondents urged limitations on outsourcing activities to mitigate these risks. Ensuring compliance across jurisdictions and adapting to evolving regulations were seen as essential to maintaining robust exchange operations.

Access to Market Data

One respondent emphasized the importance of public access to market data, arguing that maximizing public access to market data and enabling access among the greatest number of participants at reasonable speed and cost is critical to levelling the playing field in the markets.

IOSCO's response

IOSCO acknowledges different regulatory and supervisory approaches for exchanges and other trading venues. The proposed good practices in the Report have been designed to be sufficiently general to be broadly applied to the different regulatory settings. To help regulators consider whether to apply the good practices in their jurisdiction, a set of toolkits has been also included in the Report for consideration as examples of different operational approaches to the good practices.

With respect to the application of the good practices and toolkits to other trading venues and financial instruments, the Report indicates good practices and toolkits that may be useful for exchanges and other trading venues, thus contemplating the opportunity for regulators to consider extending some of the good practices and toolkits to other forms of trading platforms. As indicated in the executive summary of the Report, the principles of the good practices and the toolkits may also be applied to other types of trading venues and financial instruments.

With respect to the need to expand the European coverage in the Report, the Report has been developed to be sufficiently general to be applicable to a wide range of regulatory frameworks, which would also include the EU. With respect to the EU framework, refinements were added to the Final Report highlighting some features of the European market structure, while maintaining the broad description of market structure of all surveyed jurisdictions.

With respect to the good practices applicable to Exchange Groups, IOSCO considers the good practices to be highly relevant for the supervision of Exchange Groups and exchanges operating within the Exchange Groups.

IOSCO received one comment in relation to the introduction of a single supervision authority in the EU. IOSCO notes this sits outside the scope of this paper.