

DIRITTO DELL'ECONOMIA

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**The European Regulation
of Securities Exchanges**
**Regulated Markets in an
Evolving Technological and Legal Context**



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Chapter One

EXCHANGES AS INFORMATION PLATFORMS

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1. Exchanges as platforms: an analytical framework

Securities exchanges have long played a crucial role in the financial sector of developed economies. In countries like the US or the UK, exchanges running stock and bond markets have provided an essential conduit for equity and debt finance, and derivatives exchanges have fostered efficient risk management. Securities exchanges – and, to a lesser extent, derivatives exchanges – are also at the centre of the stage in continental European countries despite the significant role banks have traditionally performed in providing finance to firms. The importance of securities and derivatives exchanges (hereinafter, collectively: “exchanges” or “regulated markets”) goes beyond the total market capitalization of the traded financial instruments. Because of their pivotal economic function, exchanges can also be regarded as key nodes within the financial network.¹ Therefore, their role also depends on their position within that network and on their interdependence with other nodes. Countless links connect exchanges with investors and financial intermediaries, and the additional connections between direct exchange members and other financial market participants further enhance the function of regulated markets as crucial infrastructures.

But the role of exchanges in the financial system does not only depend on their natural ability to intermediate transactions among different nodes of a network, or on the systemic importance of trading venues for the resilience of the financial system as a whole. That central position is also a direct conse-

¹For an application of network theory to the financial sector see e.g. D. COLANDER *et al.*, *The Financial Crisis and the Systemic Failure of Academic Economics*, Kiel Working Paper No 1489, 2009.

quence of regulation. Regulation influences the volume of trading orders conveyed to regulated markets (or, sometimes, to other trading venues), thus adding an artificial demand for centralised trading services to the natural one. That is the case, for instance, with the trading obligation for shares and derivatives. On top of this, regulation often attaches remarkable consequences to the fact that a security is listed on a stock exchange (or, sometimes, on other trading venues). Suffice it to mention the limitations on mutual fund portfolio composition,² and the scope of application of fair value accounting.³ Market-driven and regulatory-driven concentration of trade flows are mutually reinforcing dynamics, and they both contribute to putting stock and derivative exchanges at the centre of the stage.

A good way to examine the role of regulated markets is, therefore, to consider the bijective effects of their relationship with the rest of the financial system. This book approaches securities exchanges in the light of their nature as a central node of the financial network. To do so, it refers to the analytical framework of platform economics, as this highlights the core function exchanges perform when connecting other nodes in the market, namely platform users such as issuers, banks and investment firms. More precisely, this book considers exchanges as transaction platforms.⁴

It is widely acknowledged that trading venues, and exchanges in particular, are platforms in economic terms, as they rely on (positive) network externalities.⁵ The very definition of “regulated markets” refers to their nature as “multilateral systems” (Article 4(1)(21) Directive 2014/65/EU on markets in financial instruments – MiFID II).⁶ These are, in turn, systems or facilities that en-

² Art. 50 Directive 2009/65/EC on undertakings for collective investment in transferable securities (UCITS Directive).

³ §16(a) IFRS 13 (Fair Value Measurement) (Reg. (EC) No 1126/2008 on IAS/IFRS).

⁴ See in general S. HERMES *et al.*, *A Taxonomy of Platform Envelopment: Revealing Patterns and Particularities*, in *AMCIS 2020 Proceedings* 17, available at www.aisel.aisnet.org. Other entities, such as innovation platforms, provide common technological building blocks that allow their users to create complementary products and services; see M. CUSUMANO *et al.*, *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*, Harper Business, New York, 2019.

⁵ See M. KATZ and C. SHAPIRO, *Network Externalities, Competition, and Compatibility*, in *American Economic Review*, 1985, 424; N. ECONOMIDES, *Network Economics with Application to Finance*, in *Financial Markets, Institutions & Instruments*, 1993, 89; M. SIRI, *I mercati di strumenti finanziari: autonomia dell'impresa e diritto antitrust*, Giuffrè, Milan, 2012, 138 ff.

⁶ The most common legal term for exchanges is, indeed, “regulated market”. The expression “stock exchange” is still used in Directive 2001/34/EC on the admission of securities to official stock exchange listing and on information to be published on those securities. On this distinction see Chapter 2.

able the interaction of multiple third-party buying and selling interests in financial instruments (Article 4(1)(19)). Typically, these interactions occur because regulated markets reduce search (and other transaction) costs. This function is, at the same time, a trigger and a result of network externalities. Regulated markets with more participants will be more attractive to prospective traders, due to their ability to offer liquidity. Simultaneously, new traders will make those markets more attractive by joining them.

Stating that regulated markets are platforms that aggregate trading intentions might rightly look obvious, but it is also where the easy part of the analysis ends. There are, indeed, different ways to apply platform economics to exchanges, each of them showing one view of the cathedral and, therefore, worth considering.

In particular, different opinions emerge when defining what kind of transactional platforms trading venues actually are and, specifically, whether they are one-sided, two-sided, or multi-sided markets. Divergent classifications boil down in part to taxonomy, but they also highlight the complex nature of the market structure that trading venues determine.

To some extent, the three alternative classifications may not be mutually exclusive, as they reflect divergent (and, sometimes, implicit) underlying definitions of what one-sided, two-sided, and multi-sided markets look like. Take the theory of two-sided markets as an example: some scholars focus on the fact that, in two-sided markets, an intermediary enables the interaction between two sets of agents, in a way that develops network externalities between the two different groups (indirect network effects).⁷ Other scholars prefer to look instead at price policies, so that they apply the model of two-sided platforms to markets where the quantities transacted of a certain good or service depend on the allocation of the total price between the users of the platform.⁸

Even under common theoretical assumptions, however, different views on the market structure may emerge on regulated markets, depending on the parameters adopted to group the users of exchanges. For instance, from the point of view of network externalities, some models may consider traders as a single group because these users are all interested in purchasing the same kind of service from the regulated market. In this respect, derivatives exchanges may easily qualify as one-sided platforms, as exchange-traded derivatives typically involve members and the exchange, which offsets symmetric positions, and are

⁷ See e.g. M. RYSMAN, *The Economics of Two-Sided Markets*, in *Journal of Economic Perspectives*, 2009, 125, 127.

⁸ J.-C. ROCHET and J. TIROLE, *Two-Sided Markets: A Progress Report*, in *RAND Journal of Economics*, 2006, 645, 648 and 657.

cleared centrally.⁹ To some extent, one may apply the same definition to stock exchanges, because all users (whether issuers or traders) are interested in the provision of liquidity (on the primary or secondary markets, respectively).¹⁰

Under the same model, stock exchanges might, however, also be regarded as two-sided platforms. After all, stock exchanges connect issuers on one side of the platform with traders on the other side. Issuers buy listing services which facilitate the raising of equity and debt capital at cheaper costs than over the counter. Traders buy trading services which enable them to invest and divest, once again at cheaper costs than over the counter.

Alternative classifications are also possible, however, if one looks at the pricing policies. For instance, derivative exchanges may qualify as two-sided platforms because trading fees often differentiate between liquidity makers and liquidity takers.¹¹ In more detail, different prices can reflect different group preferences: liquidity makers profit from the spread between their buying and selling activity, and liquidity takers mostly aim to change their portfolio composition.¹²

In a similar vein, one may look at buyers and sellers as two different groups and therefore classify stock exchanges as two-sided platforms.¹³ To be sure, differentiating between buyers and sellers leaves little space for one-sided markets, while the transient roles of buyers and sellers seems to make their interests homogeneous enough for them to be regarded as a single group.¹⁴

These multiple definitions are often used for different purposes. Some studies address regulatory concerns, while others are more focused on anti-trust

⁹ See e.g. P. WOOD, *Set-off and Netting, Derivatives, Clearing Systems*, Sweet & Maxwell, London, 2007, 214. Some consider even stock exchanges as one-sided networks: T. EISENMANN *et al.*, *Opening platforms: How, when and why?*, in A. Gawer (ed.), *Platforms, Markets and Innovation*, Edward Elgar, Cheltenham, 2009, 131.

¹⁰ For a definition, see T. FOUCAULT *et al.*, *Market Liquidity: Theory, Evidence, and Policy*, Oxford University Press, Oxford, 2013, 2 (“liquidity is the degree to which an order can be executed within a short time frame at a price close to the security’s consensus value”).

¹¹ D. WÓJCIK, *Revolution in the stock exchange industry: Two-sided platforms, the battle for liquidity, and financial centres*, in *Oxford University Employment, Work and Finance Working Paper No 10-10*, 2010.

¹² *Ibid.*

¹³ See e.g. G. LUCHETTA, *Is the Google Platform a Two-Sided Market?*, in *Competition Law & Economics*, 2014, 185, 190.

¹⁴ Even telephone networks (the archetypical example of one-sided platforms) connect those wishing to make a phone call and those available to receive it; see D. EVANS, *Some Empirical Aspects of Multi-sided Platform Industries*, in *Review of Network Economics*, 2003, 191, 195. Still, the roles of callers and receivers are with no doubt easily interchangeable.

considerations, for instance with a view to exploring how to carry out an SSNIP test on a two-sided market. For the purpose of this book, there is no need to take a position by selecting one specific label. However, the platform model will enable the book to highlight, where this is required, the role of different users' interests in shaping the regulation of stock and derivative exchanges.

In some contexts, grouping different (sub-)sets of users facilitates the analysis, as is the case with the interests of issuers vis-à-vis those of traders. In other contexts, differentiating between smaller subsets of users can shed light on specific regulatory concerns, as is the case with the increasingly relevant distinction between high-frequency and traditional traders. Groups that appear homogeneous in a high-level analysis often show some internal differentiations when considered more in detail. When this is the case, zooming in on each group reveals dynamics that are similar to those seen at a broader level just like in a fractal structure.¹⁵ Issuers have common interests that differentiate them from traders. Large issuers have common interests that differentiate them from small issuers. Among large issuers, financial firms have different preferences compared to industrial conglomerates and, within financial firms, banks and investment firms may have conflicting interests, too.

Finally, platform economics is a good framework to address the ownership of regulated markets because, as we shall see, allocating control powers to a specific user group may help reduce the transaction costs of running firms – and platforms like securities and derivative exchanges are no exception. Of course, not all user groups can qualify as owners, nor are all the owners necessarily users of the platform. However, allocating ownership within or outside the user groups can play a crucial role in the governance of regulated markets.

This book deals with regulated markets by looking separately at each of the main services (or functions) they perform as platforms: listing, trading, and data vending.¹⁶ Unless otherwise specified, the considerations below apply equally to securities (such as stocks and bonds) and derivatives exchanges. After highlighting some developments in the technological and regulatory context that have affected the exchange industry in recent and less recent times,

¹⁵ Fractals are self-similar structures, because the smaller components of their structure replicate the same organization of the larger elements to which they belong (as the famous quote by Benoit Mandelbrot goes, “A fractal is a shape made of parts similar to the whole in some way”: see J. FEDER, *Fractals*, Springer, Berlin, 1988, 11).

¹⁶ See e.g. J. MACEY and H. KANDA, *The Stock Exchange as a Firm: The Emergence of Close Substitutes for the New York and Tokyo Stock Exchanges*, in *Cornell Law Review*, 1990, 1007, 1012 (on the interactions between listing and trading, and for the statement that “information on stock prices must be produced and disseminated at low cost” to ensure liquidity).

the book addresses the listing function. It first considers the process for admission to listing (or to trading) and the institutional concerns it raises (Chapter 2), and then moves on to the regulatory framework that drives the costs companies face to obtain and to retain their public nature (Chapter 3).¹⁷ The analysis then considers the trading function and the problems this faces when market participants rely on new technologies (Chapter 4). The market for market data – and for pre- and post-trade information in particular – concludes the investigation of the main functions of regulated markets (Chapter 5). The book then addresses how the core activities of exchanges influence their ownership and governance structure (Chapter 6). The research concludes with an analysis of the complex interactions among users within and among the different sides of the regulated market platforms, and draws some recommendations on how to factor this complexity in the policy agenda, with a view to deliver a more efficient regulatory architecture for securities and derivatives exchanges (Chapter 7).

2. Challenges and opportunities: the old and the new

Due to their position in the financial network, regulated markets not only affect the economic system, but they are also influenced by it. Securities and derivative exchanges have recently faced several remarkable developments, whether in their functioning or in the technological and financial environment in which they operate. On the one hand, regulation has unleashed competition among exchanges, and between exchanges and alternative trading systems such as MTFs and OTFs. On the other hand, new technologies have had an impact on market members and participants.¹⁸ These have sometimes used new technologies to internalise functions that were previously performed by regulated markets, thus becoming a competitor in attracting the order flow. That is the case with investment firms becoming systematic internalisers or running their own MFT. In other instances, new technologies have changed the way members and participants interact with regulated markets, as demonstrated by the impact of algorithmic and high-frequency trading (HFT) on price discovery mechanisms.

Along with the analytical framework sketched out in section 1, the remainder of the book will analyse how these developments affect the regulatory

¹⁷ Due to the unique role of listing for equity markets, Chapters 3 and 4 are the only ones dedicated to stock exchanges exclusively.

¹⁸ This book refers to regulated market members and participants interchangeably, in line with Recital 16 MiFID II.

framework of the essential functions that regulated markets perform (listing, trading, and data vending). Each of the developments directly involves at least one of these core activities. New technologies enabling primary market interactions without the involvement of intermediaries as well as increased competition among different trading venues challenge the listing functions of regulated markets. Alternative platforms such as MTFs or OTFs and new traders using HFT strategies affect the traditional trading functions of stock and derivative exchanges. Software, data, and media companies disseminate data in partial competition with direct selling by these trading venues.

However, and perhaps more remarkably, the effects that new technologies bring about on one specific service also reverberate in the way exchanges perform their other relevant functions. This is quite obvious if one looks at listing and trading, for the simple reason that the inflow of financial instruments through listing determines the stock for secondary market trading. The IPO decline inevitably affects the nature of the average listed financial instruments, which on stock exchanges are progressively becoming large-cap, highly liquid shares of companies whose funding needs are satisfied through their operating cash flow.¹⁹

Reciprocally, if trading algorithms reduced, as some evidence suggests,²⁰ the relative importance of fundamental analysis in stock price formation, this would affect the ability of the listing function to meet the funding needs of issuers, especially when these focus on long-term returns. By the same token, market prices would become less significant if measured against their ability to reflect fundamental values.

The direction of this influence across the platform may easily be bijective and non-linear, so that changes in the provision of a function may determine a disturbance in another function, which in turn can reverberate on the former – sometimes strengthening, sometimes instead balancing out the original effect.

For instance, if order books included a higher proportion of short-lived proposals to buy and sell securities generated by HFT techniques, traditional investors might find the trading environment less friendly. If this is the case – although the point is controversial²¹ – the quality of the order books will also

¹⁹ See J. KAY, *Other People's Money: Masters of the Universe or Servants of the People?*, Profile Books, London, 2015, 160 ff.

²⁰ This would be the case if HFT increased institutional trading costs, as some studies suggest: see e.g. V. VAN KERVEL and A. MENKVELD, *High-Frequency Trading around Large Institutional Orders*, in *Journal of Finance*, 2019, 1091; L. TONG, *A Blessing or a Curse? The Impact of High Frequency Trading on Institutional Investors*, *Fordham University Working Paper*, 2015.

²¹ For evidence in this direction see N. HIRSCHY, *Do High-Frequency Traders Anticipate Buying and Selling Pressure?*, *LSE Working Paper*, 2013. See Chapter 4 for further details.

change accordingly, thus strengthening the initial development in a loop-like dynamic and, perhaps, keeping long-term oriented issuers away from stock exchanges.

If, instead, the dominant effect of HFT were the reduction of the bid-ask spread – as some empirical evidence seems to confirm²² – liquidity traders might find securities exchanges a more convenient place to invest, and issuers could raise capital at lower prices. In the same direction, if HFT proved able to displace insider traders²³, fundamental value traders might also take advantage of the new trading environment, partially compensating the change in the order book quality mentioned above.

These connections between different services provided by regulated markets also create potential conflicts of interest among the user groups they serve. Take listed companies and traders as an example: the two groups receive different services which are, however, closely intertwined. Regulated markets may adopt a pricing structure that allocates all the revenues on one side of the platform (profit-making side) and provides free services to users on the other side (loss-leader side).²⁴ Therefore, listed companies and traders compose two user groups having diverging interests, among which exchanges have to find an equilibrium that also allows for their own interest in profit maximization.

The reasons for this connection are manifold, and they all depend on indirect network effects (or cross-network externalities). Not only do listing, trading and data vending services each develop their own network economies but the stronger the network economies achieved in one of these areas, the greater the benefits accruing in the others. Thus, for example, a large number of listed entities will tend to attract more investors and make the market more liquid and, reciprocally, more liquid markets are likely to produce more significant prices and attract more issuers.²⁵ Moreover, in the presence of limited resources, making investments in one area of business leads to opportunity costs in terms of reducing (potential) investments in other areas. Finally, from a standpoint that is more strictly related to the regulatory powers of manage-

²² See e.g. A. MENKVELD, *High frequency trading and the new-market makers*, in *Journal of Financial Markets*, 2013, 712; J. BROGAARD and C. GARRIOTT, *High-Frequency Trading Competition*, in *Journal of Financial and Quantitative Analysis*, 2019, 1469.

²³ See M. FOX, *MiFID II and Equity Trading: A US View*, in D. Busch and G. Ferrarini (eds.), *Regulation of the EU Financial Markets: MiFID II and MiFIR*, Oxford University Press, Oxford, 2017, 505 f.

²⁴ For this taxonomy see J.-C. ROCHET and J. TIROLE, *Platform Competition in Two-Sided Markets*, in *Journal of the European Economic Association*, 2003, 990.

²⁵ A. FLECKNER, *Stock Exchanges at the Crossroads*, in *Fordham Law Review*, 2006, 2571.

ment companies, the adoption of standards pertaining to one area of the company's business may be influenced by the effects that could arise in areas other than the first one (for example, the adoption of less stringent listing standards may favour trading in a greater number of securities).²⁶

Mindful of the risks these conflicts create to the proper performance of services by regulated markets, EU law requires the management body of the market operator to set up governance arrangements that ensure effective and prudent management and market integrity, and mentions segregation of duties and prevention of conflicts of interest among these (Article 45(6) MiFID II). If conflicts of interest nonetheless arise between the interest of the regulated market, its owners or its market operator and the sound functioning of the regulated market, operators have to set up arrangements to identify and manage their potential adverse consequences, for the operation of the regulated market or for its members or participants (Article 47(1)(a) MiFID).

Finally, the analytical framework outlined in this Chapter also provides a useful approach in that it helps focus on the role of market participants – and of their regulation. The quality of the services provided by regulated markets inevitably depends in part on the nature and the incentives of their participants. For instance, a sheer prevalence of investors having a short-term investment horizon may affect both the information content of market prices and issuer ability to raise capital for projects with long-term returns. For this reason, an accurate analysis of the regulated markets' role as critical infrastructures in the European financial system cannot overlook the regulation of market participants. Due to the more limited scope of this analysis, the book will highlight only those elements of the legal and technological developments that are directly pertaining to regulated markets, but it will mention the impact of such developments on specific user groups when this sheds light on the functioning of regulated markets as a platform.

²⁶ This interaction cannot easily be addressed by separating the drafting of market rules from their enforcement (see Iosco, *Issues Paper on Exchange Demutualization*, 2001, 13; SEC, *Concept Release Concerning Self-Regulation*, Release No 34-50700, 8 March 2005, 71262).

Chapter Two

LISTING: INSTITUTIONAL PERSPECTIVE

TABLE OF CONTENTS: 1. The listing function and the declining numbers of listed companies. – 2. Competition for listing services: general remarks. – 3. The functions of regulated markets and the context of listing. – 4. The evolution of the listing industry. – 5. Listing function and conflicts of interest. – 6. Admission to listing in the European framework. – 7. Admission to listing in Italy. – 7.1 The listing procedure. – 7.1.1. The role of Borsa Italiana. – 7.1.2. The role of Consob. – 8. Preliminary takeaways: listing functions in the Italian scenario. – 9. The allocation of listing functions to the NCA (the UK model). – 10. Separating self-regulatory functions (the US model). – 11. Assessment of the listing models. – 12. Preliminary conclusion.

1. *The listing function and the declining numbers of listed companies*

One of the most striking developments of regulated markets in recent years is the shrinking number of listed companies in the western world,¹ combined with the overall reduction in the net equity capital inflow stock markets are raising. This dynamic has been interpreted as a result of stock exchange inability to attract SMEs and, more generally, as a symptom of the transformation of stock exchanges into platforms meant to facilitate distributions, rather than investments.²

This reduced relevance of regulated markets as a conduit to raise equity capital inevitably affects the way listing function is performed. Predicting where this will lead is however extremely complex. One possible strategy could be for regulated markets to simply relinquish listing as a core element of their business. As has been suggested,³ regulated markets might, therefore,

¹ At the same time, the total market capitalization is remaining stable, and it is increasing in some countries. This reveals the increasing average size of listed companies and calls stock exchanges' ability to meet SMEs funding needs into question.

² J. KAY, *Other People's Money: Masters of the Universe or Servants of the People?*, Profile Books, London, 2015, 160 ff.

³ *Ibid.*, 208 ff.

lose their allocative function, and instead strengthen their ability to support investors' monitoring function over listed companies.

In the light of the analytical framework provided in Chapter 1, one can easily see how these developments may affect the incentives underlying the provision of listing services. When trading fees become the overwhelming part of total profits, attracting issuers may become important not so much to get their listing fees, but rather to broaden the scope of securities that may be traded – and HFT may strengthen this dynamic as well, as Chapter 7 shows.

In this case, the provision of listing services would be justified as a facilitator of trading services and stock exchanges may develop strategies to lure issuers. In an extreme scenario, listing fees might even become negative so that stock exchanges would pay issuers to be admitted to trading on their platforms.⁴

Incentives to relax admission to listing standards so as to broaden the number of negotiated stocks and the ensuing revenues from trading fees have been a matter of concern⁵ since regulated markets have become profit-maximizing entities.⁶ Partially in response to the concern of adverse selection by regulated markets, broader reliance on public authorities in the listing process has repeatedly been called for⁷ and, sometimes, implemented at the national level.⁸ Currently, the European regulatory framework for the admission of financial instruments to listing (and/or to trading) is the result of the stratification of different statutes, namely MiFID II (Directive 2004/65/EU), the Listing Directive (Directive 2001/34/EC) and the Prospectus Regulation (Regulation (EU) 2017/1129), the coordination of which is not always straightforward.

In this Chapter, unless otherwise specified, the terms “admission to trad-

⁴F. ZINGAL and F. BECKER, *Drivers of Optimal Prices in Two-Sided Markets: the State of the Art*, in *Journal für Betriebswirtschaft*, 2013, 87.

⁵See e.g., M. KAHAN, *Some Problems With Stock Exchange-Based Securities Regulation*, in *Virginia Law Review*, 1997, 1509, 1517; J. MACEY *et al.*, *Down and Out in the Stock Market: The Law and Finance of the Delisting Process*, in *Journal of Law and Economics*, 2008, 683.

⁶See Chapter 6 below.

⁷For a review see M. O'HARA, *Searching for a New Center: U.S. Securities Markets in Transitions*, in *Federal Reserve Bank of Atlanta Economic Review*, 2004, 37. See also E. AVGOULEAS and G. FERRARINI, *A Single Listing Authority and Securities Regulator for the CMU and the Future of ESMA*, in D. Busch *et al.* (eds.), *Capital Markets Union in Europe*, Oxford University Press, Oxford, 2018, 55.

⁸The most notable case being the UK Listing Authority (UKLA; A. ROSLING and T. GODDARD, *FSA Takes Over LSE Responsibility as UK Listing Authority*, in *International Financial Law Review*, 31 May 2000), now renamed “FCA's primary market functions” (FCA, *About the Official List*, available at www.marketsecurities.fca.org.uk/aboutofficialist).

ing” and “admission to listing” are used interchangeably. However, it may be useful to point out at the outset that the two concepts are not perfectly overlapping, although the scope of the distinction may vary depending on the legal system concerned.⁹

In the European context, the basic requirement for shares to be traded on a regulated market is the admission to trading, while listing (or more properly, “official listing”) formally refers to the ability of shares to be traded on a stock exchange.¹⁰ Therefore, admission to listing is the act by which the possibility of trading securities on one (or more) stock exchanges is arranged, whereas admission to trading relates more specifically to regulated markets. Consequently, while listing can in principle occur – without, but most often – before trading, no actual trading can take place on a regulated market without previous admission to trading. For this reason, listing requirements, which are set forth in the Listing Directive, add on top of trading requirements, which are set forth in MiFID II, by defining additional conditions for issuers and their securities.¹¹

Admission to listing and admission to trading may also not coincide when, in a given legal system, the respective functions are entrusted with different entities. For example, when the national competent authority (NCA) has the power to determine admission to listing, the market operator retains the power to admit securities to trading once they have been listed. When the two functions are upon the operator of the regulated market, there is nothing in European law to prevent the operator, while retaining both powers, from applying the requirements for stock exchanges to only one of its markets. In that case, admission to listing would relate exclusively to that market, while trading on the other regulated markets operated by the same company would require only admission to trading.

Another difference is that admission to trading may occur without issuer approval,¹² while this consent is always necessary for admission to listing.¹³

⁹ G. FERRARINI, *Ammissione alla quotazione e ammissione ai negoziati: significato e utilità di una distinzione*, in *Banca borsa e titoli di credito*, 2002, 583; M. GERANIO and V. LAZZARI, *Exchanges Competition in Listing Services: Evidence for Italian Companies*, in *Economic Notes*, 2014, 283.

¹⁰ The expression “stock exchange” only appears in the Listing Directive (Directive 2001/34/EC). While all stock exchanges are regulated markets, the reverse may not be true.

¹¹ For instance, admission to listing requires the publication of annual accounts for at least the three financial years that precede the admission (Art. 44 Listing Directive).

¹² In this case, admission to trading does not determine any additional obligation for the issuer.

¹³ FESE, *Non-Paper on the Proposed Repeal of the Listing Directive*, 5 March 2019, available at www.fese.eu.

Moreover, while admission to trading is a matter for regulated markets to decide (Article 51 MiFID II), the entity competent for admission to listing may be another one (Arts 11 and 105 Listing Directive).

The general principle for admission to trading on a regulated market is that financial instruments shall be “capable of being traded in a fair, orderly and efficient manner” (Article 51(1) MiFID II). Due to the more stringent applicable requirements, any security admitted to official listing is deemed to satisfy this general principle as well (Article 3, Reg. (EU) 2017/568).¹⁴ Finally, every admission to trading requires the previous approval of a prospectus by the national competent authority (Article 3(3) Prospectus Regulation), which is separate from the regulated market operator and does not necessarily coincide with the entity responsible for the admission to listing, either.

This rather convoluted regulatory framework is the backdrop of the concerns surrounding the performance of the admission to listing and to trading (depending on the specific setting) by regulated markets. One set of doubts relates to the lack of incentives to perform this service in a proper manner, or even to the economic viability of such service. However, not all stock exchanges might decide to neglect, or even relinquish, their listing function due to the developments described above. Some of them may perhaps specialise in the provision of a rating-like service for equity securities to the benefit of prospective and existing listed companies.¹⁵ Should this scenario materialise, stock exchanges may differentiate depending on their specialization in one or the other services they provide. The following sections explore whether the allocation of listing functions upon regulated markets – and upon stock exchanges in particular – is still a suitable solution from the point of view of market efficiency and investor protection.

2. Competition for listing services: general remarks

European securities exchanges have undergone significant changes during the last decades. On the one hand, operators of regulated markets have pro-

¹⁴For derivatives, the requirements refer, inter alia, to the clear and unambiguous nature of the contractual terms of the financial instrument, to the availability of the price of the underlying asset and to the reliability of the arrangements for determining the settlement price of the contract (Art. 7 Reg. (EU) 2017/568).

¹⁵This business strategy would be similar to that followed by the Luxembourg Stock Exchange (see J. MACEY and M. O’HARA, *The Economics of Stock Exchange Listing Fees and Listing Requirements*, in *Journal of Financial Intermediation*, 2002, 297, 298), which is however more active in the non-equity segment.

gressively abandoned the traditional non-profit cooperative structure to embrace a for-profit model. On the other hand, securities exchanges have lost their traditional legal monopoly in the market for trading, particularly with the elimination of the concentration rule with Directive 2004/39/EC (MiFID I).¹⁶ The establishment of the share trading obligation under Article 23 Regulation (EU) No 600/2014 (MiFIR) relaxed such competitive pressure only to a limited extent as it conveyed trading flows to trading venues and systematic internalisers altogether – thus cutting off off-exchange OTC trading¹⁷ – but it did not affect competition among those execution venues.

These changes have naturally affected the performance by regulated markets of their typical activities: the functions of trading, the functions of admission to listing and, finally, the functions of production and transmission of market data (data vending). The effects of the new scenarios on the regulatory powers of market operators have been examined in depth by policymakers and academics. One aspect that has been questioned is whether there are sufficient incentives to allow stock exchanges to apply their regulatory and enforcement powers effectively and, therefore, in line with the regulatory objectives of protecting investors and preserving the integrity of financial markets. In particular, it was pointed out that the changes that have affected the industrial structure of the markets for trading, listing and data vending services and, therefore, the governance of regulated market operators, have not been followed by consistent reallocations of self-regulatory functions, particularly as regards the power to decide on the admission to listing of financial instruments.

This Chapter assesses the current and potential impact of the new competitive environment on the listing function of regulated markets and, in more detail, on admission to listing of shares. This activity is particularly sensitive from the point of view of the general interest in the proper functioning of the market: it includes, in fact, the supervision of compliance with structural requirements (for instance, in terms of minimum market capitalisation and governance) and with transparency obligations that issuers must comply with both at the time of admission to listing and, subsequently, on an ongoing basis. To the extent that they are not laid down by law or regulation (as it is the case for the obligation to publish the prospectus), the definition of listing requirements

¹⁶On the previous regime see P. GIUDICI, *La regola di concentrazione ed il diritto antitrust*, in G. Ferrarini and P. Marchetti (eds.), *La riforma dei mercati finanziari*, Milan, 1998, 549.

¹⁷OTC trading on listed shares is only allowed in two cases. First, when it is non-systematic, ad-hoc, irregular and infrequent. Second, when it is carried out between eligible or professional counterparties and does not contribute to the price discovery process (for instance because it occurs at a price which is predefined by reference to an official market price): see respectively Art 23(1)(a) and (b) MiFIR.