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THE CURRENT QUESTIONS OF REGULATING CAPITAL MARKETS

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Abstract

The study investigates the most important factors and events shaping the European capital market in the past 15-20 years, and the answers the financial regulation of the European Union has given and is giving to these challenges. It also analyses how the regulatory framework itself has affected the development of the capital market.

Our conclusion is that the EU's financial regulations in our focus have already been remarkably successful in attaining their goals, namely, the establishment of a unified European capital market, the strengthening of competition, the enhancement of market transparency and investor protection. The new framework, however, has also lead to a fragmented market structure. The global financial crisis functioned as an acid test to the freshly implemented regulations, revealing, on the one hand, the stabilising effect of the regulated markets and activities, and on the other, the risks lurking in the non-regulated segments. With the lawmaking process currently underway, the EU, largely in order to further pursue the above goals, strives to integrate recent market phenomena and to handle them efficiently; and at the same time, to prevent future crises, or at least to prepare for them as much as possible.

Keywords: FSAP (Financial Services Action Plan), MiFID (Markets in Financial Instruments Directive), MiFIR (Markets in Financial Instruments Regulation), EMIR (European Market Infrastructure Regulation), short selling, OTC (over-the-counter), OTF (Organised Trading Facility), MTF (Multilateral Trading Facility), HFT (high-frequency trading), dark pool, crossing network, internalisation, fragmentation, single European capital market, capital market structure, financial crisis, speculation, transparency, financial markets regulation, capital market regulation, post-trade infrastructure, ESMA (European Securities Markets Authority), consolidation, consolidated tape, liquidity, SME markets

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1. Introduction

Trading methods developed during the history of traditional exchanges, spanning several hundred years, have significantly changed over the last decades. Three key factors of this transformation, interacting with each other in several ways, are to be mentioned: globalisation, technological development and regulatory changes. The first important milestones of the European financial markets' opening are connected to the United Kingdom where the so called Big Bang financial reform started in the 1980s, giving more authority to large banks, investment firms and market participants based abroad in trading at the stock exchanges. (Wójcik, 2010:4) As a result of this transformation, national borders fell for investors and investment service providers; electronic trading systems replaced open outcry; the range of financial products widened as never before; and last but not least, a single European currency, the euro was introduced. We have been through a global financial and economic crisis, which originated in innovations and their inherent weaknesses to a remarkable extent. We seem to enter the second phase of a double-dip recession, so it is of crucial importance to markets and economies to be able to prepare for it based on what we have learnt so far.

Rapid technological development happened in parallel with financial deregulation, which made automation of trading possible. The first step was taken by ECNs (Electronic Communication Network) in the United States, which paved the way for electronic trading and offered a real alternative to stock exchange based trading. (Wahal, 2011:6) Exchanges only gradually replaced trading floors full of brokers with more efficient electronic order matching engines, to which trading members could connect via telephone cables from distant places. At first mainly younger exchanges decided to introduce these new systems, while traditional, more established venues migrated their trading to electronic facilities more slowly. (Gorham, 2011:3) Futures exchanges were the first to switch to partially automated trading systems during the 1980s, while equity markets only started to implement their own order matching engines by the end of the '90s. Technological development induced significant changes on investors' side as well: they launched their own systems, through which they could connect to exchanges; and could follow and analyse real-time price movements on their own screens in their own offices. This enabled, to be shown later, the development of trading methods using algorithms compiled by mathematicians and operating without human intervention.

Thanks to the dynamic spread of electronic marketplaces, physical barriers between countries disappeared, and market participants' costs reduced significantly throughout the chain of the trading process. Intensifying competition and the new model of operation encouraged stock exchanges to give up their previous association status and become incorporated by the end of the 20th century. (Steil, 2002:6) To comply with expectations stemming from the new ownership structure, exchanges tried to better position themselves strategically in order to be able to compete with other exchanges and alternative trading venues. As a result, consolidation processes started in the industry around the millennium, and have been undergoing in several phases ever since, resulting in bigger and bigger stock exchange groups. First of all, stock exchanges of countries lying on Europe's Atlantic coast (Paris, Lisbon, Amsterdam, Brussels) grouped and formed Euronext, which in turn merged with NYSE, based in the United States, in the second half of the 2000s. Meanwhile, Nordic and Baltic countries also created their own group named OMX, which then also became transatlantic due to the merge with US-based NASDAQ. Examples show that exchanges geographically closer to each other initiated mergers first, such as (beside the ones mentioned above) the LSE Group (London and Milan) or CEESEG (Vienna, Budapest, Ljubljana, Prague); then the emphasis shifted towards overseas mergers. In 2011 another boom of mergers could be perceived but because of the authorities' intervention most of these initiations failed (e.g. LSE Group – TMX Group, Singapore SE – Australian SE). The only exception could be the Deutsche Boerse – NYSE-Euronext merger; however, according to the latest news, Joaquin Alumnia, the commissioner for competition, is against the USD 9 billion merger, on the grounds that the European derivatives market would become too concentrated as a consequence of the transaction.

The transformation of the exchange industry and the trading infrastructure has resulted in several positive impacts for the market participants, as global financial products have become available with an ease and a flexibility never seen before. The fall of the Berlin Wall was also an important step in the evolution of the European capital markets, as the post-Soviet countries could open their own stock exchanges, thus considerably expanding the opportunities of the continent.

To get a better picture, it is worth to quantify the changes of the last two decades. After the change of regime in the Central-Eastern European countries at the end of the '80s, the number of the European stock exchanges increased to 30, most of which are currently members of an exchange group mentioned above. Considering the general tendencies of the industry, further mergers and alliances are expected in the years to come. As a result of an easier access to cross-border venues, the activity of remote members has significantly increased in recent years. Equity market capitalisation of European exchanges was six times and their annual turnover value was nearly seven times higher in 2011 than 20 years ago[1]. This is an impressive performance, especially considering the declining demand for shares during the global economic crisis. This massive increase in turnover is due to the fast expansion of algorithmic trading technologies on the one hand, and to the strengthening activity of both institutional and private investors on the other.

Multilateral Trading Facilities (MTFs, defined by MiFID) have dynamically expanded their market share since their authorisation in 2007; today they contribute more than 25% of the European equity turnover. Consolidation tendencies can be observed among MTFs as well, as at the end of 2011 the two biggest players (Chi-X and BATS) merged successfully. While alternative platforms are primarily founded to easily trade shares already listed on a regulated market, traditional exchanges have continued to fulfil their basic role of raising capital to companies: in spite of the financial crises, European corporations could raise capital by going public in the value of 350 billion euro[2] in the past 10 years.

[1] Estimation based on FESE (Federation of European Stock Exchanges) statistics
[2] Calculation based on the IPO Watch Europe by PWC

As a result of trading automation, markets, on the one hand, became more transparent as market participants could obtain more information on the content of the order book; on the other hand, the processing of this enormous additional information presented (and still presents) new challenges for investors and regulators. Therefore, these developments necessarily coincided with the creation of important regulations and directives, which have also contributed substantially to the transformation of the capital market structure. In many cases European regulatory authorities rely on US experience, as innovations of the modern financial world arise typically from the overseas. Appropriate regulation is crucial to keep even the normal development of markets under control, but it is particularly important in containing crisis situations. This was recognized early by the EU, and at the beginning of 2000s it was already engaged in the creation of an integrated financial regime for the member states. In the wake of recent market developments and the crisis, a new EU regulatory wave has began, bringing the revision and deepening of existing rules, and the elaboration of new provisions. The aim of the new EU rules is, firstly, the appropriate treatment of innovative market structures, technologies and products; and secondly, to give a proper legal framework to the Old Continent to get ready for future developments and innovations. However, the events of recent years clearly illustrate that the regulatory environment itself also strongly affects developments in financial markets, both in positive and negative sense: it creates opportunities for new products and services; but these innovations often arise by exploiting gaps in the rules. In this paper we investigate the new challenges affecting the structure of European capital markets, the regulatory responses given to them so far, as well as possible opportunities and dilemmas for lawmakers in the future.

2. Creation of a single financial market

The aspiration to create a single European financial market reaches back as far as the 1970s. Back then started the development of an environment that would provide the secure execution of financial transactions in the member states of the European Union. However, it was only the first step: in practice markets still operated separately, and it was difficult for financial institutions to conclude cross-border transactions directly. After the introduction of the euro in 1999, the intention to form a single European market became even stronger. The key goals were drafted in the so-called Financial Services Action Plan (FSAP) by the European Committee. (European Commission, 1999:3)

2.1 Capital market regulation before the Action Plan: ISD

The European Committee took an important step in 1996 towards the development of a single capital market, as it put the Investment Services Directive (ISD) into effect, introducing the notion of 'regulated market'. ISD functioned as a European passport for financial service providers. (Wójcik, 2010:4) Thanks to ISD, all the three groups of service providers (banks, insurance companies and investment service providers) could appear on the member states' markets as fully comprehensive investment companies entitled to provide investment consultancy, collect clients' orders and put them through to any exchange in the Union. This directive made it possible for regulated markets to cease open outcry systems requiring the physical presence of brokers, which therefore, could be exchanged for absolutely automated systems. In order to intensify competition and make operation more transparent, ISD was reviewed. With the introduction of MiFID I in the late 2000s, replacing the previous regulation, ISD, the key aim was to enlarge the scope of ISD and to further harmonise EU rules and regulations. It was necessary because with the development of capital markets a new generation of trading systems emerged, which ISD could no longer govern properly. Orderly operation of securities markets required more stringent regulation of investor protection and closer cooperation of authorities.

2.2 Strategic objectives of the Action Plan

The Action Plan, being phrased in the beginning of 2000s, can be seen as an even more significant undertaking compared to previous steps. It drafted the integration of financial markets along three strategic objectives: 1. creation of a single EU wholesale market; 2. development of open and secure retail markets; 3. elaboration of state-of-the-art prudential rules and supervision. (Cégvezetés, 2005; Dr. Mohai, Tóth, 2004) Strategic aims were complemented by the general objective of providing wider conditions for an optimal single financial market. (European Commission, 1999:31)

The first objective meant the abolishment of various barriers in case of different market participants. From the issuers' point of view the aim was to simplify the process of raising capital. It certainly required the mutual recognition of information documents (prospectuses, regular disclosures and extraordinary announcements) between member states and the enhancement of trustworthiness of those in investors' eyes. The Action Plan also intended to develop a single framework for cross-border mergers and acquisitions and to enable operation on a pan-European horizon. As regards investment service providers, one of the key issues was how to gain remote access to several markets via a single access point; this required the review of ISD already in effect. Among the objectives, special attention was paid to investor protection and, related to it, to the handling of market abuses and insider trading. Regulations governing investment funds and pension funds were also developed to serve investor interests. (European Commission, 1999:22-25; Cégvezetés, 2005; Dr. Mohai, Tóth, 2004; Marján, 2003:146)

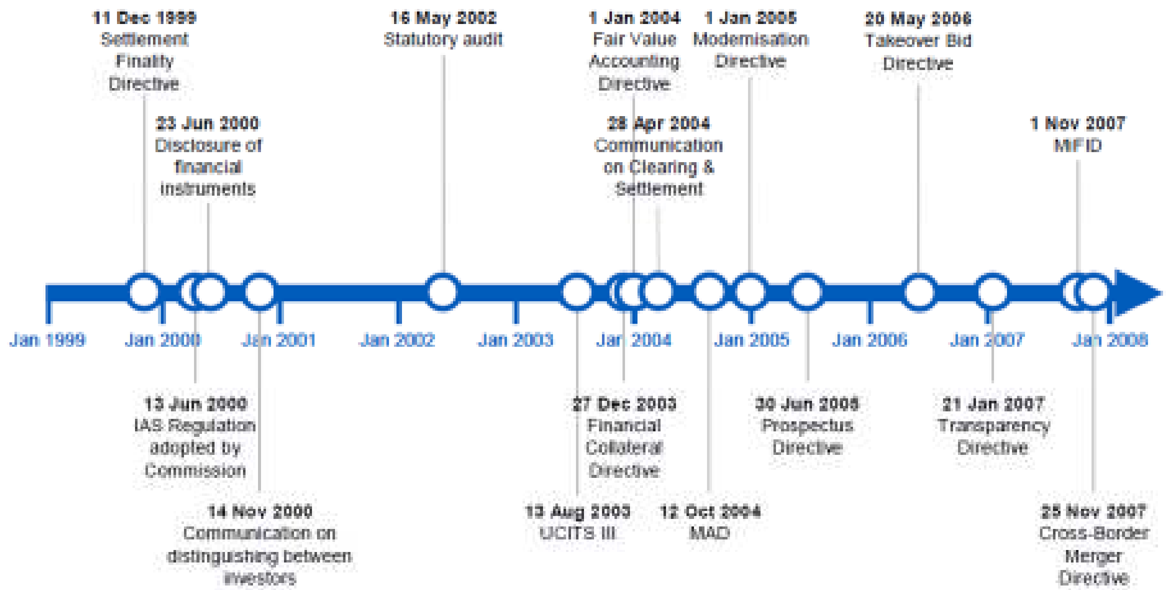
For the purpose of developing open and secure retail markets, the Action Plan aimed the proper supply of retail investors with information and the strengthening of consumer protection, as well as the efficient and adequately secure cross-border operation of payment systems. (European Commission, 1999:26-27; Marján, 2003:146-147)

Finally, requirements laid down in the third objective were to maintain stability and confidence while global integration was underway and market structure was rapidly changing. To achieve that, the European Commission put an emphasis on forming regulations which would ensure safe and transparent operation of financial institutions. (European Commission, 1999:28-30; Marján, 2003:147)

Harmonisation of tax systems and corporate governance principles appeared as a general objective in order to create a single market and allow free movement of capital. (European Commission, 1999:31)

Measures detailed above (42 in total) were planned to be finalised by 2005; regulatory gaps were also intended to be covered by then, just as abolishing barriers in order to provide easy access to financial services in Europe. (HM Treasury, FSA, Bank of England, 2003:2)

Chart 1. Transposition dates for measures of the Action Plan related to capital markets



Source: Malcolm, Tilden, Wilsdon, 2009:161

2.3 Developments on the capital market

As discussed in the previous section, the Action Plan covers several issues related to financial markets. In the following table we primarily summarise the effects on the capital market. [3]

[3] Based on (Malcolm, Tilden, Wilsdon, 2009)

Table 1. Objectives of the Action Plan related to capital markets

MEASURES	STRATEGIC OBJECTIVE	OPERATIONAL OBJECTIVE
MAD (Market Abuse Directive)	Establishing a common legal framework for integrated securities and derivatives markets	Increased market confidence
Communication on distinguishing between investors		Appropriate investor protection
MiFID (Markets in Financial Instruments Directive)		Appropriate investor protection; create single passport; best execution; remove barriers to entry for exchanges; increase competition between trading venues
UCITS III (Undertakings for Collective Investments in Transferable Securities)	A single market which works for investors	Remove barriers to entry for management companies; harmonise information to investors; expand investment options
Takeover Bid Directive	Towards a secure and transparent environment for cross-border restructuring	Ensure efficient market for M&A activity
Cross-Border Mergers		
Prospectus Directive	Raising capital on an EU basis	Increase market confidence; harmonise information disclosure
Transparency Directive		
Fair value accounting Directive	Towards a single set of financial statements for listed companies	
IAS Regulation		
Modernisation Directive		
Statutory Audit Recommendation		
Recommendation on disclosure of financial instruments	State of the art prudential rules and supervision	
SFD (Settlement Finality Directive)	Containing systematic risk in securities settlement	Harmonise legal treatment of financial collateral; protect transfer orders entered into a designated system; greater competition between clearing and settlement providers; removing barriers to post-trading through increased choice
Communication on Clearing and Settlement		
FCD (Financial Collateral Directive)		

Source: Malcolm, Tilden, Wilsdon, 2009:164-165

The creation of a single securities and derivatives market started with the implementation of MiFID I (Markets in Financial Directive) (European Parliament, European Council, 2004) in 2007, the output of the review of ISD which had come into effect in 1996. The directive's objectives were to intensify competition and to strengthen investor protection. The regulation achieved its goals in many ways: new trading venues emerged, some cost elements were reduced; in addition, best execution also serves the interests of investors. Besides other effects, market structure went through a significant change due to MiFID I, which revealed several new challenges; as a consequence, review of the previous regulation and development of MiFID II are underway. One of the principles of the review is to enhance transparency by standardising and consolidating available data, but eliminating regulatory arbitrage opportunities is also a hot topic.

One of the highlights related to issuer companies is the Prospectus Directive, which definitely facilitated raising capital in different member states. Due to the single passport principle, a prospectus approved in any home country within the Union makes listing and trading of securities possible in other member states. Administrative burdens decreased as a consequence; particularly enough, however, the opportunity created by the directive was mainly exploited on the bond market while it failed to bring a breakthrough on the equities market. Transparency Directive, concerning issuers from a different aspect, enabled the comparability of publicly traded companies' financial reports as it standardised regular disclosure requirements. Nevertheless, this did not result in absolute harmonisation; member states still differ in many ways.

Market Abuse Directive (MAD) was created in 2003 in order to handle market abuse and insider trading issues; it was fairly appreciated because it perceptibly brought cleanliness on the markets. According to others, however, the directive is not enough by itself; to discourage market abuses, more publicity (investigations and convictions) is needed. (Malcolm, Tilden, Wilsdon, 2009)

While under the MiFID Review there is a definite intention to increase transparency, as regards disclosure requirements of issuers, easing is rather in focus. Although the importance of transparency is still emphasised, simplification is underpinned by the intention to strengthen small and mid-cap firms' presence on the capital market; alleviation of burdens is thought to be necessary.

Several directives were prepared in relation with post-trading, such as SFD (Settlement Finality Directive) to ensure security in payment and settlement systems, and FCD (Financial collateral Directive) to make cross-border collaterisation possible. Nevertheless, the Action Plan did not bring any material changes (EUbusiness, 2008): legal and technical barriers still impede cross-border clearing and settlement services; risk management issues have not been solved either. Initiations (e.g. Target2 Securities, Code of Conduct, EMIR) independent from the Action Plan appeared though, which attempt to facilitate cross-market transactions. Besides that, MiFID I has also intensified competition, which implies further changes to post-trade infrastructure.

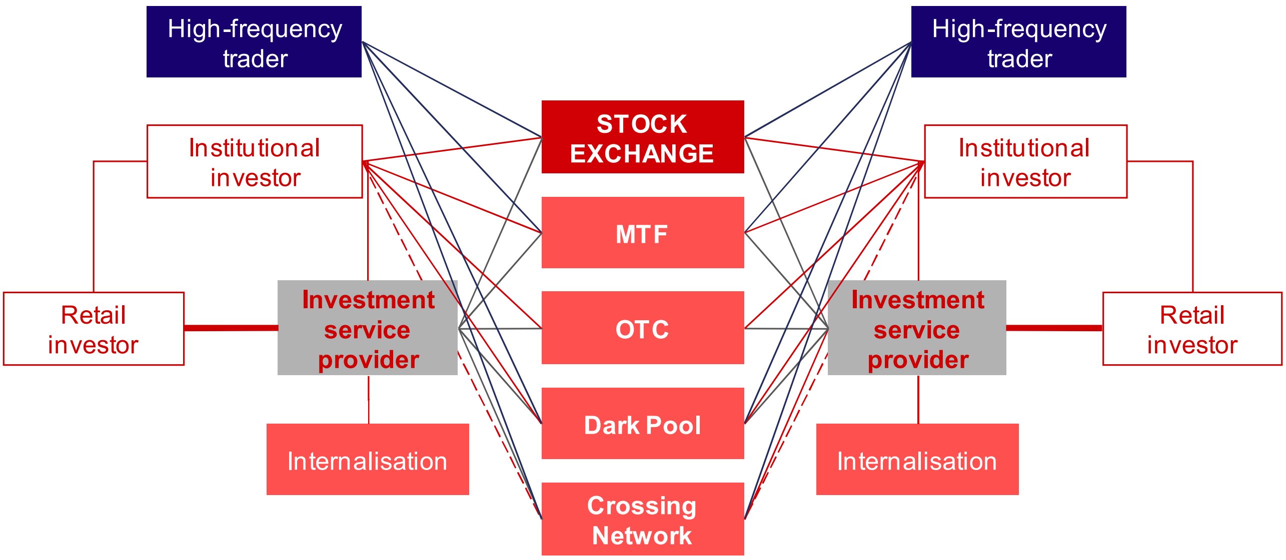
FSAP visibly started several developments on the European capital markets, of which MiFID I induced the most significant changes. The new regulations have already produced notable results, especially considering the short time that has passed since their introduction. However, their shortcomings have been also revealed, which was exacerbated by the spread of technological innovations and the financial crisis. Authorities reacted to problems not yet handled or only partially solved by reviewing previous measures and preparing new regulations, which is happening currently. Thus a regulatory boom reached Europe yet again; however, many think that the potential benefits of the legislative efforts are not enough to offset the costs incurred.

3. Current market structure and impact of MiFID I

3.1 Execution venues

Aiming to answer the challenges described above, regulators worked out MiFID I, which was implemented in 2007. In this section we give an overview of the new market structure and its elements, then we analyse its impact. Chart 2 shows the trading infrastructure going live after new regulations came into effect, displaying the range of available trading venues, as well as market participants and the relationships between them.

Chart 2. New market structure after the implementation of MiFID I



Source: BSE

The two main execution places in the traditional trading model, i.e. stock exchanges and the OTC space, are still important pillars of the infrastructure. Several examples, e.g. breakdowns of trading systems at main European stock exchanges, prove that lit order books of regulated markets still serve as a reference and ensure transparent price formation. Pre- and post-trade transparency is a requirement for these markets, even if it only covers listed shares as yet[4] (Bedő, Pesel, 2006:15), thus providing valuable information for market participants. When system failures occurred on exchanges, trading activity dropped instead of migrating to alternative trading platforms. These examples indicate market participants' temporary insecurity when 'main' markets become unavailable. It is also important to note that certain disclosure requirements apply to listed companies in order to increase investors' confidence due to heightened transparency. This requisite is absent from other trading venues, just like listing procedure, which is also a specific feature pertaining to regulated markets only. Stock exchanges, therefore, provide traditional and necessary functions even in a highly competitive environment.

Significance of the OTC market is proved by the latest estimations which say that OTC transactions give 40% of European equity market turnover. (Gomber, Pierron 2010:3) In addition, there are financial products

[4] We will refer to transparency requirements by keeping this in mind in accordance with MiFID I.

such as FX trades, which are typically traded over the counter. A major advantage of OTC transactions is product customisation according to the needs of the counterparties; this can offset less transparency and the lack of guarantee in certain cases (e.g. using derivatives for hedging purposes). MiFID I defines OTC trades as ad hoc and irregular trades, carried out between wholesale counterparties, above standard market size. (Európai Parlament, Európai Tanács, 2004b:9) Experience however shows that a significant portion of OTC trades do not exceed standard market size, and it would not have any recognisable market impact if they were executed on lit venues. (Gomber, Pierron 2010:3) Therefore, it is questionable why pre-trade transparency requirements are not applicable for OTC trades. As detailed below, trades concluded on crossing networks are taken as OTC transactions at present, thus they are not regulated in any form.

MTFs, which operate practically the same way as ECNs in the United States, emerged on the European landscape thanks to MiFID. Multilateral trading facilities and stock exchanges have much in common; the only substantial difference is that on these platforms there are no listing procedures – any financial product listed on a regulated market can be traded on an MTF. Furthermore, these systems can be operated not just by traditional exchange operators but also by investment companies. (Bedő, Pesel, 2006:8) MTFs, which already amount to more than 25% of European equity market turnover, are currently considered as the most important competitors to stock exchanges. They mainly take advantage of state-of-art technology and low transaction fees. Although MTFs can operate only within the given regulatory framework including pre-trade transparency requirements, they are provided with a more flexible playing field compared to traditional exchanges. Still, as mentioned above, MTFs would probably cease to exist without the subsistence of reference markets.

Notion of systematic internaliser was also introduced by MiFID I. Internalisation refers to the situation when an investment service provider executes a client order against its own account. If this is on an organised, frequent and systematic basis, it is called systematic internalisation. Internalisation covers bilateral transactions similarly to OTC trades, pre-trade transparency requirements apply to them, so quotes have to be published. (Gomber, Pierron 2010:10)

Dark pools and crossing networks constitute a separate category, in which client orders are crossed against each other. Although key features of the execution venues are almost the same, they are treated in different ways. Dark pools are operated by regulated markets or MTFs, and due to an applicable waiver (referring to transactions executed at reference price, negotiated trades, order management facilities, or large-in-scale trades) they do not have to comply with pre-trade transparency requirements. The original objective of dark pools is to be able to execute large orders without significant market impact and information leakage. Further advantage of dark pools is that transactions are concluded at the midpoint of the bid-ask spread, thus providing favourable prices to investors. Crossing networks, on the other hand, are operated by bigger investment banks and brokerage firms; they fall outside the scope of MiFID I, therefore considered as OTC trades at present. Another difference compared to dark pools is that banks operating crossing networks have discretion in choosing their customers; in addition, trades can be executed at any point within the spread, not just at midpoint. In brief, both trading platforms provide opportunity for dark/hidden execution, and this is what market participants are most concerned about. Evidence shows that not typically large-in-scale orders are executed in dark pools, so these venues do not meet their original objective in reality. Nevertheless, both venues generate only approximately 2-2% of the total turnover, thus trading volume related to these platforms is not considerable. (Réz, 2011:434-440)

3.2 Accelerated trading[5]

Our intention with the previous section was to give an overview of the wide range of trading venues; however, it is worth taking a look at the investor side as well. On the one hand, investors (mainly institutional ones) can already access platforms not just via investment service providers but also directly, which gives them more protection against information leakage. The most common form of direct connection is DMA (Direct Market Access). In this model, investors reach the systems of the execution venue directly; their orders only have to pass through the brokerage firm's risk management system in order to guarantee security. If investors do not possess state-of-art technology needed for DMA, they can continue to use investment service providers' systems to conclude transactions. Consequently, competition among brokerage firms is getting fiercer as they try to acquire as many clients as they can by offering sophisticated trading solutions and a liquidity pool.

[5] Based on (Réz, 2011)

High frequency traders (HFT[6]) also have to be mentioned when talking about participants of the new market structure. High frequency trading is an automated trading type, running ahead of the market due to its developed technology. It makes HFT firms able to enter several thousand orders during a fraction of second, and execute or cancel those orders rapidly. High frequency trading is often interpreted as equal to algorithmic trading; however, they are not the same. It is true that high frequency trading also uses algorithms but HFTs are independent firms whose activity is characterised by proprietary trading, small orders and flat position at the end of trading days. They often act as market makers without any signed agreement; in addition, they analyse publicly available information, to which they can react faster than others. In contrast, brokerage firms use algorithms to conclude client orders, aiming for best execution (e.g. price, cost) besides meeting other client needs. Although HFTs generate 40% of European equity market turnover, views differ as to their profitability: based on certain estimations their profit opportunities are not as attractive as many people would think, while others claim that HFTs are milking cows.

As one of the key advantages of HFTs is speed, many markets try to meet their requirements via so-called co-location services. It means that market leaders can place their trading engine physically close to stock exchanges' or other platforms' systems, which lowers latency. HFTs can also take advantage of speed when exploiting the results of analyses based on publicly available information before others could do. The threat of information leakage, to which we referred previously, became tangible with the appearance of HFTs.

3.3 Post-trade infrastructure[7]

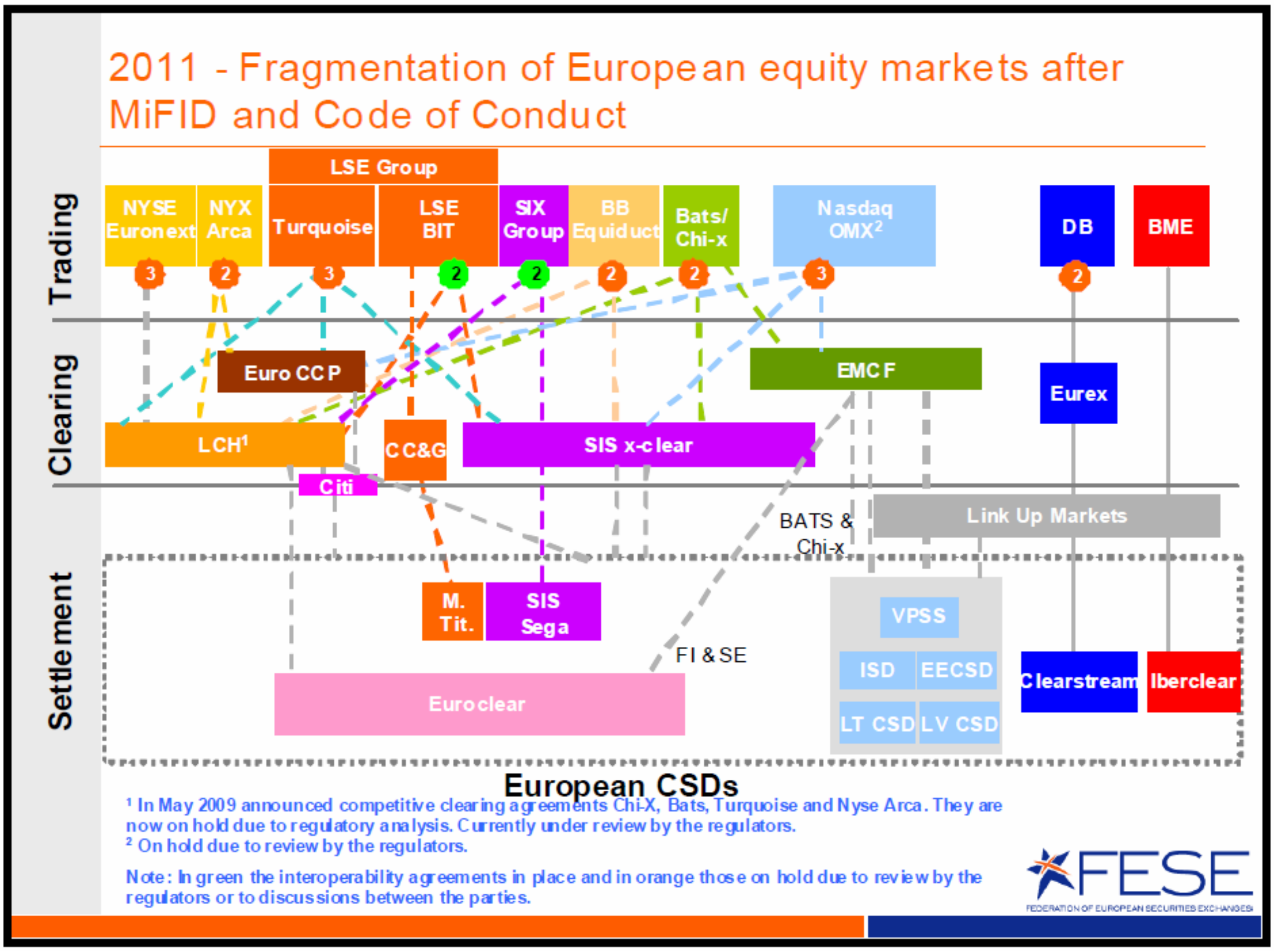
The transformation that took place in the post-trade infrastructure was less visible, but MiFID I induced changes in clearing and settlement services as well. One of the most significant innovations is connected to clearing: especially due to the spread of MTFs, new CCPs (central counterparties) providing cross-border services emerged, quickly attracting customers with their new solutions and favourable prices. The demand for interoperability has emerged, which can be defined as cooperation between different CCPs, marking the end of national monopolies. This solution enables market participants to choose a CCP and to receive clearing services for trades concluded on other (e.g. foreign) markets via this single CCP membership. Due to regulators' concerns, however, interoperability gains field quite slowly. Authorities are cautious with approving applications for interoperability, fearing potential systematic risks, as the default of one CCP impacts another CCP's operation.

Settlement services are still dominated by national monopolies. Target2 Securities is to change this situation by harmonising the settlement of transactions by creating a single platform for them. This can be followed later on by the harmonisation of depository and custody services, but Europe is still far from that at the moment.

In the United States, DTCC (The Depository Trust and Clearing Corporation) covers all post-trade services as a single institution with the help of its subsidiaries. European markets, on the other hand, are absolutely fragmented in this respect (Chart 3), which makes the settlement of trades concluded on various platforms more difficult and costly. A further problem is that post-trade transparency requirements do not fulfil their goals: data from different sources are not comparable, thus they do not provide valuable information for market participants.

Chart 3. European post-trade infrastructure in 2011

[6] The abbreviation HFT is used for market participants and the trading technique as well.
[7] Based on (EGMI, 2011)



Source: EGMI, 2011:19

3.4 Impact of MiFID I

After the implementation of MiFID I in 2007, the structure of the capital market went through significant changes, becoming more complex. The main objective of the directive was to reduce investors' costs while enabling them to access a much wider product range; investor protection was also one of the major issues. To achieve the first goal, the directive followed the US model by breaking stock exchanges' monopoly (abolishment of the concentration rule), and defining new execution venues (MTF, internalisation). These venues operate similarly to regulated markets but within a more flexible framework. As alternative trading platforms emerged, competition intensified indeed; however, some of the appearing innovative solutions fell out of MiFID I's scope. Therefore, the evolving market structure highlighted certain deficiencies of the directive as it only covered part of the trading venues, while others can still operate without any regulatory obligations.

Moreover, some argue that it was the loose definitions and the ambiguous phrasing of MiFID I which led to the appearance of certain market phenomena (e.g. crossing networks), successfully taking advantage of regulatory arbitrage. Besides the inappropriate application of basically proper regulation, a key problem related to MiFID I is the lack of enforceability: authorities do not have enough power to efficiently sanction those who break the rules or exploit gaps. (Lannoo, 2011) Creating opportunity for regulatory arbitrage was also a consequence of MiFID I's legal form: being a directive it had to be implemented by member states into their legal systems, which created an unlevel playing field in the capital market regulation of countries within the Union. Consequently, a need emerged for a single rulebook in this field.

One of the attractive features of alternative trading platforms is their state-of-art technology, which motivated stock exchanges to keep up with their new competitors. Fierce competition in order to acquire or retain investors has improved service level, while it also attracted new participants (such as HFTs) to the European landscape. As a result of this, investor activity and liquidity seemed to increase, which stimulated markets. However, enlarged trading opportunities also resulted in liquidity fragmentation, which challenged market participants in new ways. A solution had to be found for the execution of large orders without considerable market impact. Investment banks seemed to answer the new challenge by consolidating liquidity, as they started to provide access to a wide range of markets with their advanced technological solutions.

Although the new and complex market structure remarkably widened the trading landscape, it also created uncertainty among market participants due to the lack of transparency. The expanded infrastructure increased the quantity of information; data is not standardised; moreover, in certain cases it is only published post-trade and with a delay. As a consequence, transparency is often impaired. MiFID I offers waivers from pre-trade transparency requirements (i.e. publishing information on orders) under certain conditions, which gives way to dark pool type platforms. The directive did not count with the spread of various dark venues though, so these are not subject to any regulation at present, or at least they are not given a proper framework. Consequently, part of the trading data remains hidden from investors; and although in some cases this is justifiable (e.g. the execution of large orders without significant market impact), recent experience demonstrates that dark platforms have wandered far from this original objective.

While pre-trade requirements do not apply for all market participants, information on executed trades has to be published in each case. Nonetheless, these data are not really user-friendly because their contents are not comparable. Accordingly, definite demand arose for the creation of a consolidated tape, which would ideally provide information on order books in addition to post-trade data.

Talking about markets' transparency, it has to be emphasised that MiFID I's requirements only cover shares. EU goals and market participants' needs both made it clear that the MiFID Review should extend the scope of transparency requirements to other instruments: non-equity instruments (e.g. certificates, ETFs), debt securities and derivatives.

In conclusion, MiFID I abolished many of the barriers impeding competition, reduced investors' fees (at least most of its elements) and improved investor protection. Nevertheless, it did not count with a global financial crisis, which made the solution of new problems necessary. In the sections to follow, we give an overview of the issues revealed by the crisis and the technological innovations, and also provide some details on authorities' reactions.

4. New challenges

New trading methods evolving rapidly as a result of technological innovations, confronted regulatory authorities with new challenges. It has become clear that algo trading activities need to be kept under stricter control. The difficult situation of regulators is further aggravated by the new problems to solve that arose due to the global financial and economic crisis.

In this chapter we mention a number of factors originating from the US. This is where most of the financial innovations come from, and spread on to Europe. Nevertheless, as it always takes some time for these phenomena to take root in a market, we try to grab the opportunity to investigate them, draw conclusions and integrate them into our expectations.

4.1 Regulation of high frequency trading

When investigating the regulation of algo traders, it is worth taking a closer look at the new phenomenon of HFTs, defined in the previous chapter. In recent years many medium-sized brokerage firms, generally with proprietary trading desks, grew up (mainly as arbitrageurs or non-official market makers), generating higher turnover than the biggest institutional investors. According to some estimates, HFT firms, representing about 2% of the 20,000 trading firms in the US markets, amount to more than 70% of all US equity trading volume. (Forbes.com, 2012) This is mainly attributed to the fact that HFT firms take advantage of their speed: they are continuously looking for transactions of which they can profit some euro/dollar cents, repeated thousands of times per second. (Gorham, 2011:12) In order to keep up a profitable operation, HFT firms are interested in generating the highest possible turnover, thereby automatically providing huge liquidity on the markets.

HFTs are always looking for the fastest solutions of connection to the trading venues. In recent years the technological battle for speed has reached levels never seen before. Trading firms are spending hundreds of millions of dollars to build direct and faster connections between the biggest financial centres with fiber optic cables running underground. One of the most famous cases is the connection between Chicago and New York, on which 300 million dollars were spent to save about three milliseconds for the traders. Plans to establish new transatlantic cables between US and EU financial centres in the near future are already underway.

In addition to the co-location services, trading firms have come up with new ideas like sponsored access services, which allow exchange members to rent their direct connection to their clients, who in turn can trade without the intervention of their sponsoring member. Critical voices often argue that trading firms, which would not comply with all membership requirements can benefit from the advantages of a quasi direct connection by using sponsored access services. There is another concern raised about the sponsored access, namely the widening informational asymmetry between well-informed and less informed traders: some exchanges allow HFTs to co-locate their trading engines, providing them a competitive advantage compared to slower clients. The crisis has revealed many problems, to which the Securities and Exchange Commission (SEC) reacted with stricter rules for using sponsored access. Restrictions focused on the so-called naked access, which is operated without using any kind of prior risk management tools; in November 2010 SEC banned it altogether.

Professional views diverge regarding the contribution of HFTs' activity to the increased market volatility of recent years. Answering this question is not evident because HFTs' short past makes it difficult to examine their impact on market efficiency properly (Katz, 2011:4); furthermore, their dynamic expansion coincided with the roller-coaster rides of markets during the crisis. One of the most famous events referred to in these debates was the so-called Flash Crash, which can be clearly associated with HFTs' activity. In the early afternoon on 6 May 2010, the main indices of US stock markets suddenly dropped by around 10% within half an hour; some shares even lost more than 90% of their value for a short while. Prices returned relatively soon after the crash, within a couple of hours, but this event attracted the attention of market participants. Although the SEC published a study examining the events of the Flash Crash in October 2010, in fact, the real causes are still not entirely revealed yet. Nevertheless, it seems to be clear that a significant proportion of the sales was generated by algo traders.

So what we have seen is that HFT firms, in the blink of an eye, can take out the huge additional liquidity what they continuously provide in a 'normal' market environment. Since the 'big' Flash Crash markets have suffered several mini flash crashes, although these were not as grave as the events on 6 May 2010. Authorities, recognizing the systemic risks, are trying to limit HFTs' activity in several ways: they determine minimum order and execution times, and they charge message traffic instead of trades. Moreover, authorities recently intend to gain insight into the background of algorithms; however, this move is still fiercely opposed by HFT firms.

4.2 The responses to the negative impacts of the crisis

One of the fundamental causes behind the outbreak of the crisis in 2008 was the uncontrollable proliferation of OTC markets. Due to the lack of transparency neither investors nor authorities could be able to size up the hidden systemic risks, which claimed such well established victims as Lehman Brothers. According to the statistics of BIS (Bank of International Settlement), the global value of OTC derivatives was the highest in June 2008, nearing 700,000 billion dollars. By comparison, this figure is more than ten times as much as the global GDP or global exchange market capitalization back then. However, the lack of transparency made it difficult for the authorities to create proper rules; therefore, large investment providers nearly went bankrupt, affecting the normal operation of the global financial world. Seeing the bankruptcy waves, the leading powers and authorities started to elaborate regulations on OTC derivatives, in agreement with the top financial players. The objectives of these legislative efforts were: product standardisation, facilitation of trading OTC derivatives on exchanges, clearing them through a central counterparty (CCP), and reporting obligation of derivative contracts to data warehouses (IMF, 2010). In addition, European authorities began to cooperate with US regulators to create a safer environment for derivative transactions by making these markets more transparent with stricter capital requirements.

In addition to the stricter regulation of OTC derivatives, a number of shorter or longer periods characterised by high volatility could be observed since September 2008, which drew the attention of authorities to limit the large in size speculative short positions. (European Parliament, European Council, 2011a) During the crisis several EU member states imposed limitations on the short selling of exchange-traded shares, as short positions were established in the benchmark shares of flagship companies. However, the introduced measures varied significantly across member states due to the lack of a Union level directive. The success of short selling regulations was questioned by professionals, who argued that these restrictions did not address the real roots of the problems. The details of this regulation will be discussed in the next chapter.

The crisis highlighted another fundamental problem: funding SMEs has become more difficult as banks are reluctant to grant loans. Decision makers, nevertheless, only recently recognized the importance of filling this financing gap. One possible solution of this problem could be that exchanges, as efficient venues of corporate financing, and authorities would create an easier process of listing SMEs. This is an issue of outstanding importance because although a strong SME sector is one of the pillars of a modern economy, these companies cannot take real advantage of capital raising opportunities offered by stock exchanges. One possible explanation of this phenomenon is that international investors are mainly interested in the shares of blue chip companies. Stock exchanges are trying to satisfy this demand by merging to form bigger and bigger trading venues; as a result of this consolidation, liquidity tends to concentrate in blue chips. By the mitigation of securities market transparency requirements it would be possible for SMEs to find their ideal secondary market on traditional trading venues. Reduced and simplified reporting requirements would apply to SMEs on stock exchanges, making it easier for managers to spend more time on business operation.

In December 2011 the European Commission announced an Action Plan to improve SMEs' access to funds in order to facilitate economic growth. (EU Action Plan, 2011) The idea, after stabilising the financial system, is to form an environment where SMEs can easily borrow money on the long run. In addition, by improving the legal environment and reducing administrative costs, smaller companies could also take advantage of raising capital in public markets. The Action Plan also includes the concept of 'SME growth market', which could be granted to MTFs complying with pre-defined conditions. The basic aims of this idea are to draw investors' attention to SME shares and to improve their liquidity. Reduced, simplified and less frequent disclosure obligations are also in the Action Plan's focus.

In summary, the modern financial system may be threatened by a wide range of risks, which can be traced back to fast-growing technological innovations on the one hand, and to the impacts of the global crisis on the other. Therefore, in order to minimize the drawbacks, authorities should create coherent rules based on a market consensus. The processes detailed above put especially the markets of the United States to the test. However, considering that everything has a ripple effect on the European scene, it is important that EU authorities pay attention on these events and, learning from others' experience, prepare themselves for the future evolution of the capital markets.

5. Answers given by the regulations in the making

As we have seen earlier, the evolution of the capital market structure and trading technology, as well as the financial crisis, have confronted European regulators with a number of new challenges. Seeking the answers to these challenges triggered a new wave of legislation in the Union in the course of 2009 and 2010. The issues raised in our study were mainly answered by three regulations, being at different stages of the lawmaking process, but all to become effective in the future: MiFID II, the output of the review of MiFID I; EMIR, concentrating on transparent trading and the settlement of OTC derivatives; and the regulation on short selling. In the sections to follow we put these regulations into our focus to identify the answers they give to the challenges described before.

5.1 MiFID II[8]

In the earlier chapters we have examined the most significant effects of the financial crisis of 2008-2009 and the main technological novelties of recent years. These were the basic factors which motivated the review of MiFID, launched in 2009, topped by the commitments made by the EU on 2009's G20 Summit. On the Pittsburgh Summit the Union undertook to enhance the transparency and strengthen the supervision of heretofore less regulated markets, and to curb the excessive volatility on the market of commodity derivatives. (European Commission, 2011a) The principal event behind this latter phenomenon is that, beside traditional market participants using commodity derivative products for hedging, speculators appeared on the market, bidding up prices and making them more volatile. This phenomenon may have far-fetching consequences especially in the case of basic comestibles, potentially leading to a feeding catastrophe. (Henriques, 2011)

Thus the core principle behind the MiFID Review has become that the regulation of the financial markets should serve the economy and the society, and not the other way round. This mission can be fulfilled only if the regulation is able to enhance the safety, stability, transparency and responsibility of the financial system; and at the same time it improves the integration, efficiency and competitiveness of the Union's financial

[8] The source of the information not marked otherwise in this chapter is the two draft legal texts. (European Commission, 2011c, 2011d)

markets. The crisis has shown how important is the adequate protection of investors; the MiFID Review seeks to strengthen it even further.

The Review sets a number of operative aims through which it seeks to attain the above goals. In order to establish competitive neutrality and to create a single rulebook, discretional powers of the member states should be minimised, the efficiency of supervision should be enhanced both on member state and on Union level, and the implementation of the rules should be improved. It is indispensable to further decrease the costs of all market participants, especially in those areas where MiFID I resulted in a rise in costs (such as access to information). It is also important that the new legal texts offer clear practical rules for all covered activities; and that the same rules should apply to any specific activity, regardless of the organisational framework they are pursued in. (European Commission, 2011a)

In view of the accomplishment of the goals described above, the European Commission published the first draft of MiFID II in October 2011. In order to formulate a single rulebook, the former directive was divided into a new Regulation (MiFIR) and an amended Directive (MiFID). The Regulation contains those rules which should be applied directly and uniformly in each member state. Topics covered here closely reflect the priorities of the EU and of MiFID II: among others, transparency issues, new obligations regarding the trading and settlement of derivatives, and the open access of trading venues and central counterparties are handled here. The modified provisions of the Directive should be implemented by the member states, taking into account the specific features of their legal system. For example, the new requirements referring to algorithmic trading systems and SME markets, as well as provisions related to the position limits of commodity derivatives and their reporting are contained here. In the paragraphs to come we will give an overview of the most significant novelties of the MiFID II from the point of view of our investigation and their criticism.

It continues to be MiFID's declared aim that all organised trading should be conducted on regulated trading venues. Seeking to attain this goal, the most important novelty of MiFID II in terms of market structure is the introduction of a new trading venue category, organised trading facility (OTF). This new category serves as an answer to the appearance of the new types of trading venues (predominantly, crossing networks), and also intends to establish a framework to similar constructions to appear in the future. Just like regulated markets (RMs) and MTFs, OTFs are multilateral systems operated by neutral entities (i.e. proprietary trading of the operator as well as connection to other OTFs is prohibited), and are subject to the same pre- and post-trade transparency requirements. Their peculiarity lies in the fact that OTFs have some degree of discretion in access provision and order execution; that is, they can choose who may trade in their system, and may on occasion defer from predetermined order matching rules. These features, especially according to operators of crossing networks, are key elements to their functionality; while others, with FESE (Federation of European Stock Exchanges) among them, argue that they violate competitive neutrality and the principle of level playing field. (Inel, 2011)

Another, albeit less significant modification affecting market structure is that, in accordance with the SME Action Plan, MiFID II introduces the category of SME growth market. MTFs may apply for this status if they comply with the criteria laid down in the Directive. MiFID II defines SMEs as companies with a capitalisation below EUR 100 million. The appearance of the SME concept in MiFID II, however, is rather a technical step only, which will be filled up with real measures by the SME Action Plan.

It is a warmly welcome step that MiFID II materially widens the scope of pre- and post-trade transparency (i.e. publication and reporting obligations regarding orders and transactions, respectively). Whereas MiFID I only required transparency with respect to equities, the reviewed legislation extends it to other equity-like instruments, bonds, structured products (such as certificates and ETFs), as well as to derivatives and emission allowances. These requirements are the same for all types of organised trading venue (RM, MTF, OTF). A significant modification affecting current market practice is that MiFID II makes waivers to transparency requirements more consistent and more coherent, so that only those venues and trades remain invisible to the public that (typically due to their being large in size) would indeed be detrimental to market price formation.

The MiFID II does not only improve the information supply of the public, but that of supervisory authorities as well, helping them fulfil their market surveillance and sanctioning tasks more efficiently. To this end, the new legislation extends reporting obligations to practically all financial instruments (with only a few well-defined exceptions) and to all organised trading venues. The data content of the report is also expanded, so that it will be easier to identify the clients and the person or algorithm responsible for the execution of the transaction. A new element affecting both publications and reports is that MiFID II defines firms specialised in the provision of information services, and includes them in the process of data dissemination. Of these data reporting service providers we would like to highlight the category of consolidated tape providers (CTPs). In accordance with the new provisions, data generated on trading venues are gathered, consolidated and disseminated to investors as an electronic real-time data flow by a couple of competing service providers operating under strict rules. These measures are expected to decrease data fragmentation, improve information supply to the market, and cut costs of access to information.

The crisis has shown that in tense situations the largely unregulated markets can behave as destabilising nodules on financial markets. Therefore, in addition to extending the scope of transparency requirements to derivative products traded on organised markets, MiFID II also introduces specific regulations on commodity derivatives. In order to improve the stability, transparency and control of the OTC derivatives market, as well as for the EU to comply with its G20 commitments, MiFID II requires that all trading in eligible (i.e. sufficiently developed) derivatives is conducted on organised trading venues. Thus it will no longer be possible to trade these products in the OTC space. Moreover, in the case of commodity derivatives, all venues trading these products have to have arrangements to limit open positions, and to send reports on these positions to competent authorities.

To help the further opening of financial markets, strengthen competition and achieve level playing field, MiFID II declares that both trading venues and CCPs have to ensure non-discriminatory access to their systems (this obligation is further elaborated in EMIR, to be discussed in the next chapter). Likewise, owners of benchmarks (such as indices) are also obliged to provide non-discriminatory access to their product. New provisions regarding investment firms coming from third countries serve similar purposes, standardising processes to be followed by member states, which currently diverge significantly.

Recent years have demonstrated that in times of crisis regulated markets function more robustly than less regulated ones. To strengthen this feature, the Directive formulates new requirements on systems resilience, circuit breakers (i.e. the automatic trading halts in cases of significant price movements), algorithmic trading systems and direct electronic access. In accordance with these provisions, for example, regulated markets have to be able to handle peak order and message volumes, and have to ensure that algorithmic traders and members with direct access to the trading systems cannot create disorderly trading conditions. Investment firms have to comply with similar obligations. Stricter organisational requirements will refer to both regulated markets and MTFs, and (as products may now be traded on multiple venues) the exchange of information among trading venues will become more active and more regulated in cases of trade suspensions, deletions and market disorders, for instance.

An important shortcoming in the implementation of MiFID I is that supervisory authorities do not have sufficient intervening and sanctioning powers against actors in breach of the regulations, and that these powers differ materially across member states. MiFID II, therefore, significantly widens the competence of both national authorities and ESMA (European Securities and Markets Authority). For example, the Regulation provides that competent authorities may permanently, while ESMA may temporarily, ban products, services or activities if they seriously endanger investor protection or the stability or proper functioning of the EU's financial markets. To avoid that derivatives behave as catalysts in crisis situations, competent authorities (and in certain cases, ESMA too) may apply limits to derivative positions or require the reduction of the size of such positions. In the hope to ensure the EU's more efficient and more coherent reaction in critical situations, MiFID II expects member state authorities to communicate and cooperate more intensely with each other and with ESMA as well.

At present only the first draft of MiFID II is available, so it would be difficult to judge its future effects at the moment. It is evident though that the Union is definitely striving to manage the challenges we have raised in our study. Firstly, it reacts to market fragmentation partly stemming from MiFID I, intending to reduce its unfavourable effects. To this end, the legislation aims to establish a level playing field for the different trading venues and market participants. Secondly, it seeks to cover trading venues which have recently appeared and which are likely to develop in the future; and also to pick from the "black box" of the OTC space those activities which ought to be pursued in more regulated markets. Thirdly, with the extension and deepening of transparency requirements and with data consolidation measures investors and supervisory authorities will most likely become more informed. This way not only competition is expected to strengthen, but as markets and activities become more transparent, future crisis situations will hopefully also become more foreseeable and more avoidable. Finally, MiFID II covers technical novelties such as algorithmic trading (although HFTs are not specified as such) and direct market access; the new regulations aim to limit risks stemming from these phenomena.

As the MiFID Review handles issues which are cardinal to the capital market, it receives outstanding attention from market participants. So although MiFID II is still at an early stage in the legislation process, it has already received considerable criticism. It is often mentioned that the provisions are too complicated, and are still not clear enough despite lawmakers' efforts. In addition, not enough time passed since the implementation of MiFID I, hence the effects of its provisions have not been able to unravel themselves in full yet; therefore, the reaction to these effects cannot be appropriately founded. Similarly, due to the heavy technological implications, it would be necessary to provide sufficiently long transition periods for the new regulations to come into effect. Finally, smaller market actors argue that MiFID II is still calibrated to the largest European markets; for instance, the threshold values defined for order sizes are far too big for smaller exchanges. (Kauppi, 2011)

As regards the criticism of specific provisions, we have mentioned earlier that it is the introduction of the new OTF category which FESE opposes most fervently. The organisation uniting European exchanges argues that the definition of OTC ratifies the practice of trading venues avoiding the stricter regulations pertaining to RMs and MTFs. As a consequence, the same activities fall under lighter rules when conducted on a venue classified as an OTF. FESE opines that this effectively harms the transparency and neutrality of the market as a whole instead of improving it. FESE suggests as an alternative that the definitions of already existing trading venue categories and the boundaries between them should be clarified. FESE also points out that before open access is granted to CCPs, its expected effects and implications should be investigated thoroughly. Otherwise the EU will have to face grave systemic risks and the potential loss in market share of European markets, especially in the segment of derivatives trading. (Inel, 2011, Jochumsen, Hardt, 2011)

5.2 EMIR[9]

EMIR (European Market Infrastructure Regulation) was mainly inspired by the global financial crisis; its key goals include enhancing transparency on OTC derivatives' markets, and ensuring the secure and reliable operation of CCPs.

The objectives of the regulation, set at the G20 Summit in September 2009, are as follows: all standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms and cleared through CCPs by the end of 2012 at the latest; OTC derivative transactions should be reported to trade repositories; non-centrally cleared contracts should be subject to higher capital requirements. In order to accelerate implementation, G20 added to the above goals in June 2010 that improvement of transparency and regulatory oversight of OTC derivatives should happen in an internationally consistent and non-discriminatory way. (holman fenwick willan, 2011)

Text of EMIR is more or less finalised; it is expected to be approved and come into effect by the end of 2012. Since EMIR is a regulation, there is no need for implementation; it will be applicable automatically in all the member states.

One of EMIR's central issues is requiring all OTC derivatives to be centrally cleared through a CCP. Regulators intend to reduce partner risk by this measure, which would require the deposit of appropriate collateral for these products as well. Although regulation does not specify the scope of the requirement in terms of OTC contracts (ESMA has the authority to determine this later), it intends to involve as many products as possible. ESMA should keep in mind that the obligation should only be extended to those derivative categories which can be securely cleared – the aspects to be considered in this decision are standardisation, liquidity, and systemic risk.

It has been difficult to collect reliable information on OTC derivative positions, which EMIR would like to change by introducing a reporting obligation. These requirements are expected to include all derivative trades, not just OTC transactions (G20 only referred to OTC contracts). The intention is to standardise content (details will be worked out later), which will hopefully result in more user-friendly information; and due to more transparency, risks can be better mitigated. Reporting obligation will mainly apply to CCPs and involved counterparties. Data will be collected and stored by trading repositories founded particularly for this purpose, which, in accordance with reporting obligations suggested in the MiFID Review, will be obliged to publish aggregated data on derivative positions regularly. The fact, however, that OTC derivatives are to be regulated in MiFID II as well as in EMIR, may cause duplications or even contradictions.

Another purpose of EMIR is to create a framework for CCPs' operation and supervision, as the introduction of clearing obligation increases the importance of these institutions from a systemic view. The regulation touches on all the main areas of CCPs' operation such as minimum amount of initial capital, organisational requirements and risk management. Non-discriminatory access is also of high importance: if an execution venue (e.g. stock exchange) requests the clearing of a contract, it can only be refused on good

[9] Based on (Európai Parlament, Európai Bizottság, 2011b)

grounds; if it meets all the requirements, it cannot be rejected. It also applies vice versa, thus if a CCP requests access to a platform's trading data, it has to be provided.

Although guidelines for interoperability had been determined in a Code of Conduct earlier, voluntary signed by market participants, EMIR also has the intention to regulate CCPs' cooperation. The regulation makes room for interoperability, but only in case of transferable securities' and money market instruments' clearing, and it underlines the importance of risk management.

EMIR aims to cover several issues in order to calm down growing concerns after the crisis. However, it is up to the future how effectively regulators and market participants will be able to carry out these requirements in practice. Many people's fear is that compliance will increase costs (e.g. IT costs), also including transaction fees, while others expect post-trade service costs to decrease due to intensifying competition. It is also a question whether the regulation will enable the abolishment of existing barriers to competition; or everything remains unchanged, and single financial markets will still be served by a fragmented post-trade infrastructure.

5.3 Short selling[10]

In the wake of the crisis a need was articulated to create a standardised European regulation on short selling activities and credit default swaps (CDS), and to realise closer coordination among supervisory authorities in times of crisis. Just like in the case of MiFID II, and in line with the intention to establish a single European rulebook, the first draft of the legislation was released in the form of a regulation in 2010. The text, thanks in a considerable part to the efforts of the Hungarian presidency in 2011, is practically finalised and is close to final approval; it is expected to be implemented in the second half of 2012.

The new short selling provisions cover all financial instruments (including derivatives, sovereign debt securities and their derivatives) listed on any exchange or registered on any other trading venue in the European Union, whether they are traded on or outside an exchange. In response to practical experience, the Regulation applies a wide interpretation of net short positions: not only does short sale belong here but all transactions as a result of which the person has a financial advantage from the decrease in price or value of the instrument. Examples include short positions taken up on trading venues, net short positions generated by using derivatives, as well as interests arising via CDSs, indices or ETFs.

One of the principal aims of the legislation is to improve the transparency of short sale transactions with respect to both the public and supervisory authorities. To this end, in the case of shares, all net short positions exceeding 0.2% of the company's issued share capital shall be reported to the competent authority, and each 0.1% above that. If the net short position exceeds 0.5% of the company's issued share capital, it shall be published in an aggregated, anonymous way (and again, each 0.1% above that). Significant net short positions in sovereign debt and CDS shall also be reported to the authorities, with the threshold values pertaining to member states and to the EU as a whole to be determined later on by the European Council.

Another central element of the Regulation is that it prohibits the naked short selling of shares and sovereign debt; however, it provides an ample range of situations when these transactions can be considered as covered. In particular, it is only possible to sell a share if the seller owns or has borrowed it; or at least he/she has identified and located where these shares would be accessible if settlement becomes due, and he/she has made arrangements with the owner of the share on a potential future delivery. As a result of long debates, intraday short selling (i.e. when the investor purchases the share by the end of the trading day) is not allowed automatically; nevertheless, it will be possible in certain circumstances.

Similarly to MiFID II, the Short Selling Regulation also extends the powers of member states' supervisory authorities, and strengthens coordination among them. Thus in exceptional (crisis) situations competent authorities may introduce additional restrictions, such as requiring market participants to report or disclose their net short positions, and banning or limiting short selling in one or more or all instruments. ESMA is also granted wide intervening powers: for example, in exceptional situations it may ban the shorting of certain shares or euro zone sovereign debt; in addition, it coordinates and comments the measures of member states' authorities.

Interestingly enough, while debates on the Short Selling Regulation were underway, authorities of several member states struggling with financing problems introduced restrictions on short selling from August 2011. These measures were already taken in coordination as regards timing; however, specific details of the restrictions (all short sales were banned or only naked ones; which securities were affected; whether or not

[10] The source of the information not marked otherwise in this chapter is the draft legal text. (European Parliament, European Council, 2011).

the restrictions covered the derivatives of the specified securities etc.) diverged significantly. (Portfolio.hu, 2011)

As far as the potential effects of the provisions of the Short Selling Regulation and their criticism are concerned, we would like to highlight Wyman's study, who sought the opinion of a wide range of market participants regarding the legislation on the making. The study cited the idea to publish short positions individually, also specifying the name of the holder, as the most controversial element of the proposed legislation; this provision had already been removed from the text in a later stage. In addition, the study found reporting and publication thresholds unnecessarily low, which is still relevant. It also articulates institutional investors' concerns that the new regulation places EU markets to a competitive disadvantage compared to other, more liberally regulated markets, which will cause part of the turnover to flee from Europe and liquidity to deteriorate. (Wyman, 2011)

6. Conclusion

It has been one of the main goals of our study, and at the same time, one of its most important conclusions, to demonstrate the versatility with which the regulatory environment is embedded into financial and economic processes and affects the development of capital markets. We have seen that regulations do not only follow innovations but they often trigger or motivate them as well; let us just think about MTFs or the birth of dark pools.

Investigating the effects of the EU legislation implemented during the last 15 years, we cannot ignore the fact that, while fulfilling their original goals from many aspects, they have also invoked phenomena which were hardly compatible with these goals. The overarching objective of these legislative efforts was the creation of an integrated European financial market; looking from the perspective of market participants, we can say that they have basically fulfilled this goal. The fundamentally different legal frameworks prevailing in the member states until recently have provided an unlevel playing field to market participants. This situation has already improved greatly due to the implementation of MiFID I; MiFID II and the other regulations under approval are expected to further decrease the differences between member states. Owing to a large extent to these legislative efforts, a much more "user-friendly" financial environment has evolved in the Union: the hegemony of exchanges has been broken, boundaries have fallen, as a result of which investors are presented with a wider range of investment alternatives and their costs have also decreased. In addition, brokers can easily access remote markets by a simple click; while companies can raise capital on various markets. Besides that, reporting and disclosure obligations required by MiFID I increased transparency on equity markets; MiFID II further standardises these requirements and enlarges the scope to other instruments and market segments.

Dark side of these changes also have to be mentioned. Regulation and innovative solutions mainly taken from the United States caused the fragmentation of markets in several ways – either talking about the fragmentation of liquidity or trading data –, which then resulted in the lack of transparency and obscure markets created uncertainty among investors when it came to investment decisions. Moreover, single access to post-trade infrastructure has not been handled yet either, even if significant steps were taken regarding this issue as well. Finally, OTC markets, which are often referred to as 'black box', came into focus especially due to the global financial crisis. It can be appreciated that market participants can now choose from the wide range of trading platforms, techniques and products, while it also has to be underlined that this variegation often confuses people due to the overwhelming quantity of information. Full circle is complete at this point: because of the factors above regulators aim to unify markets and increase transparency. Furthermore, they have to handle new phenomena in a way not to suppress positive effects of those and not to limit sustainable development.

The current regulatory wave, which was particularly induced by new challenges, has the objectives to adjust previous legislation and also to create a new framework. This process includes the above presented MiFID Review, short selling regulation and EMIR aiming to handle clearing and OTC derivatives related issues. The implementation of changing rules requires significant resources from market participants, which can also be looked as investment in a more competitive and crisis-resistant future market structure.

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