Best Execution Implementation and Broker Policies in Fragmented European Equity Markets

Peter Gomber*, Gregor Pujol and Adrian Wranik

From November 2007, the "Markets in Financial Instruments Directive" (MiFID) has to be applied by investment firms and regulated markets in Europe. Investment firms are obliged to make provisions including processes and IT systems for order routing to achieve the best possible result for clients in order execution. We empirically investigate the implementation of best execution obligations applying a longitudinal analysis of best execution policies in 2008 and 2009 respectively. The European trading landscape has changed as competition between established exchanges and new trading venues has increased significantly. In both studies, 75 policies of German investment firms were analyzed to investigate how best execution obligations have been implemented and whether market fragmentation has been considered.

Field of Research: Financial Service and Banking Regulation, European Financial Markets.

1. Introduction

From November 2007, the "Markets in Financial Instruments Directive" (MiFID) has to be applied by investment firms and regulated markets when providing investment services in Europe. The central innovations of MiFID are the new classification of trading venues (regulated markets, multilateral trading facilities (MTF), systematic internalisers), the definition of "best execution" at a European level and transparency regulations for OTC-trading.

Investment firms are obliged to make adequate provisions including processes and IT systems for order routing ("best execution arrangements") to achieve the best possible result and to disclose sufficient information of the most important measures to clients ("best execution policies"). Although "best execution" and the associated duties constitute a legal obligation in the relationship between clients and investment firms, at the economic level this topic also decisively affects the interface between investment firms and execution venues.

Best execution is discussed from different perspectives in literature, e.g. how best execution can be realized and measured. Macey and O'Hara (1996) analyzed legal and economic aspects of the duty of best execution and recommended that best execution for a particular trade is best achieved through competition between trading venues. However, McCleskey (2004) suggested that best execution should be subject to regulation, as investors are not capable to evaluate execution quality due to limited access to appropriate information. A number of papers examined costs as a key aspect involved with best execution for a single

*Peter Gomber, Gregor Pujol, Adrian Wranik, Chair of e-Finance, E-Financelab, Goethe-University Frankfurt, Germany

email: {gomber | pujol | wranik} @wiwi.uni-frankfurt.de

trading venue (Roll, 1984; Stoll, 1989) as well as between different markets (Huang & Stoll, 1996; De Jong et al., 1993).

Recent research increasingly focuses on the benefits of technology such as smart order routing systems to achieve best execution. Foucault and Menkveld (2008) studied the competition for order flow and concluded that transaction costs could be reduced if market participants adopted smart order routing. Ende et al. (2009) developed a methodology to assess advantages of dynamic routing and quantified the economic benefits of smart order routing technology for European equities.

After the enforcement of MiFID, Hengelbrock and Theissen (2009) studied the market entry of Turquoise, finding that the new MTF does not provide lower execution costs than primary markets. Riordan et al. (2010) compared market quality of the London Stock Exchange (LSE) against a number of MTFs. While quoted spreads are lower on the LSE, implicit transaction costs measured as effective spreads are on average smaller on Chi-X, BATS, and Turquoise.

With MiFID, the European Regulator particularly intends to harmonize best execution requirements on a European level. The new regime is characterized by a large diversity of influencing factors (financial instruments, execution venues) that investment firms have to consider in order execution processes and IT systems.

Earlier studies among 200 investment firms in Germany revealed that for most German financial institutions MiFID is more of a regulatory burden than a chance to leverage competitive potentials (Gomber et al., 2007). However, 32% of the investment firms answered that competitive differentiation can be achieved through the design of best execution policies and considered this aspect as having the highest chances of all services connected with MiFID.

Thus, the purpose of this paper is to analyze the evolution of the implementation of best execution processes and applied IT systems as documented in best execution policies after MiFID entered into force. Different policies of German investment firms are analyzed and compared over time. The study also checks how far the institutions' earlier assessment of the competitive potential of order execution is reflected in best execution policies.

The motivation for a longitudinal analysis, i.e. the collection and analysis of the best execution policies both in 2008 (right after the initial implementation of MiFID) and also in 2009 is two-fold: First, MiFID mandates a review of the investment firms' policies at least on an annual basis or whenever major changes occur, i.e. we can assure that investment firms investigated and adapted their policies between the two points of analysis. Second, the European trading landscape has experienced an intensified competition after the enforcement of the MiFID that unfolded its impact on the market shares among trading venues between 2008 and 2009, especially with the advent of new trading venues (MTF) offering serious alternatives for best execution.

The next chapter provides some background on developments of European financial markets. Chapter 3 presents the research questions and sample data. The main results are reported in chapter 4. Chapter 5 concludes.

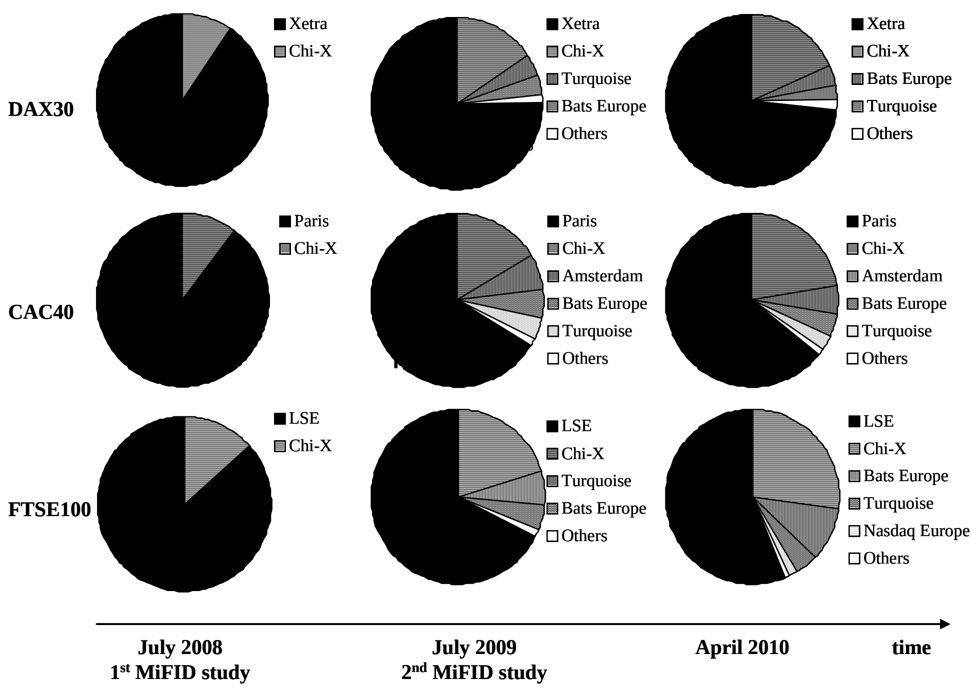
2. MiFID impact on European trading venues

MiFID has triggered a new competitive environment for equity trading and services. With the proliferation of new MTFs such as Chi-X, Turquoise or BATS Europe, the number of trading venues has substantially increased offering a wider range of trading options.

Two key trends can be observed: First, order flow is increasingly directed away from incumbent exchanges towards new MTFs. Second, cost structures for trading and post-trading activities in the European marketplace have changed significantly.

Due to MiFID, market shares have been shaken up and trading volumes have recognizably shifted among execution venues. Figure 1 illustrates the changes for three important European equity indices over time. While prior to MiFID domestic markets held market shares close to 100%, new trading platforms gradually have gained importance, e.g. for FTSE-100 the LSE's market share accounts for just 50%.

Figure 1: Market shares of major European indices over time (Fidessa, 2010)



In 2009, the European Commission commissioned a study (Oxera, 2009) to monitor fee developments across 18 European markets. One key result addresses the explicit costs for trading services that on average have decreased along the entire trading value chain.

Figure 2: Change in explicit costs over time (2006-2008) (Oxera, 2009)

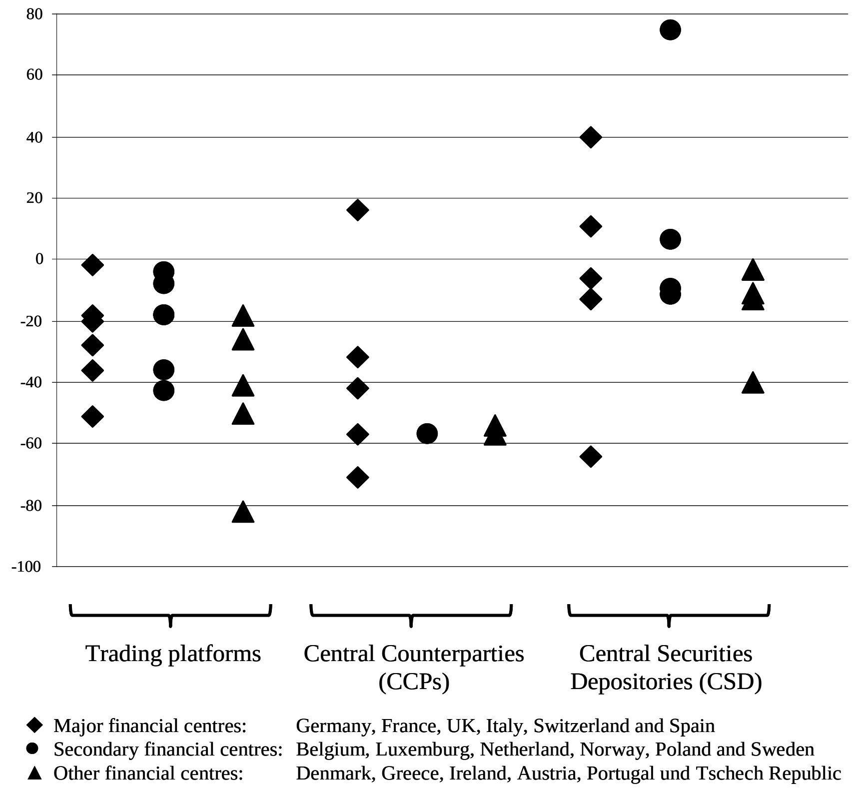


Figure **2** highlights changes for different groups of European markets from 2006 to 2008. Across all groups, average fees charged by trading platforms as well as central counterparty clearing fees have significantly reduced. Fees charged by Central Securities Depositories do not reveal a systematic trend.

3. Research questions and data

MiFID does not prescribe how investment firms have to implement best execution obligations. On the one hand they need to establish adequate internal provisions for business processes and IT (best execution arrangements), on the other hand sufficient information regarding these arrangements has to be communicated to clients (best execution policies). As only latter information is publicly disclosed, the subsequent analysis focuses on publicly available data (best execution policies).

The new European concept of best execution in securities trading and its practical implementation raise a number of important research questions: (i) How do firms implement best execution obligations from a process and IT perspective and which criteria are used for order routing? (ii) Do best execution policies implement the mandatory legal requirements of MiFID and do they reflect increased competition among trading venues over time? (iii) Which execution venues are preferred and how does this preference evolve due to the changed competitive landscape?

The paper takes four steps to address these research questions:

First, it analyses which option the investment firms selects to implement best execution requirements. It is investigated whether a static rule framework applying historical data only is used to determine the venues for order execution or whether a dynamic order routing process is applied that relies on sophisticated order routing software and real time market data to determine which execution venue is able to provide the best result at the time of order submission. This analysis of static versus dynamic best execution policies is directly linked to the criteria an investment firm takes into account for the selection of an execution venue and therefore these criteria are analyzed in this context. Second, the best execution policies are investigated as a whole and compared with each other regarding the level of fulfillment of the mandatory legal requirements over time. Third, the policies were analyzed with regard to the existence of a ranking for specific client categories or classes of instruments.

As MiFID had to be transformed into individual national legislations by all European member states, a consistent view can only be achieved for one member state. For both studies Germany was selected as it represents the largest European economy. For the purpose of investigating the changes of the best execution implementation and the reaction of investment firms on the recent developments in the European trading landscape both studies use an identical sample of firms' best execution policies in Q2/2008 and Q3/2009 respectively. Various channels were used for obtaining the policies, e.g. by data collection over the Internet, by email or telephone contacts.

The study is based on the 100 largest German financial institutions in terms of total assets in 2006 (Karsch, 2007) and the 15 largest online brokers according to number of security accounts (Kundisch & Holtmann, 2008). The list of the 100 largest institutions was adjusted by removing the companies which do not provide investment services reducing the number to 63. Since in 2008, three best execution policies were not made available, the final sample covers 75 best execution policies.

In the following, results of the data analysis in 2009 are presented and compared to the findings in 2008. In subsequent figures and tables, the results of the data analysis in 2009 are marked in bold, the comparative values of 2008 are indicated in parentheses. While in the text, percentage values always refer to the total sample size (75 policies), absolute figures are used to explain findings of a sub-sample.

4. Results

4.1 Implementation of Best Execution Processes

Best execution policies are a major part of the provisions which firms must make in order to ensure that they can regularly execute orders in the best possible manner. The most important legal requirements of MiFID implementation in Germany are specified in the German Securities Trading Act (WpHG)[i] and the Ordinance Specifying Rules of Conduct and Organisation Requirements for Investment Firms (WpDVerOV).[ii]

Although MiFID lacks guidance on how to implement the best execution obligation, two basic concepts can be distinguished: Firms may apply a static approach, i.e. the decision to route client orders to a particular venue is based on a pre-defined rule framework taking into account different criteria such as client category (retail or professional client), order types and sizes and classes of instruments (shares, bonds, derivatives). The Committee of European Securities Regulators (CESR) suggests a minimum level of differentiation (CESR, 2007) by distinguishing between different client categories and classes of instruments. The result of such a rule framework typically leads to one particular venue that provides the best possible result for a particular client category, class of financial instrument or a combination of both based on historical data.

Alternatively, the appropriate execution venue is selected by applying a dynamic approach which is an implementation that exceeds MiFID minimum legal requirements: Each order is treated in an individual manner considering real time market data for the order routing decision. Such provisions enable a real-time evaluation and support a dynamic allocation of the individual order to the venue offering the best conditions at the time of order entry. Considering the increased competition in Europe such a real time comparison allows an optimized selection between venues improving execution quality but it obviously leads to higher costs of implementation.

Figure 3: Static vs. dynamic best execution approach

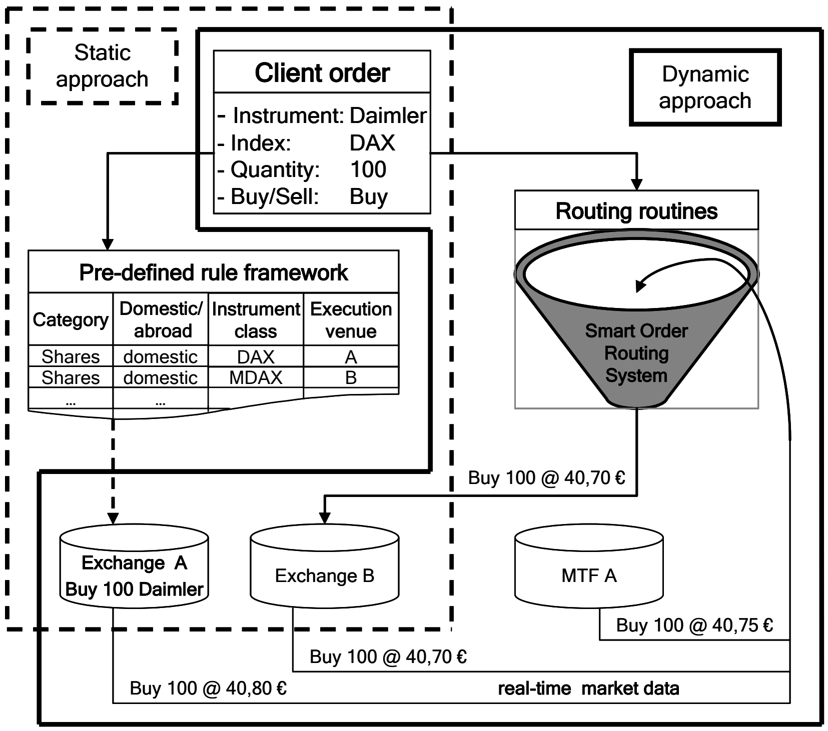


Figure 3 illustrates both concepts. While in the static approach (dashed box) client orders are routed to the best execution venue (here: Exchange A) based on a pre-defined rule framework, the dynamic approach (solid box) applies real-time market data in the decision process. Based on routing routines of the smart order routing system the best venue (here: Exchange B) is detected at order entry and subsequently the order is submitted to that venue for execution.

Relevant Criteria and Implementation of best execution processes

For both concepts, the relevant criteria for achieving the best possible result are derived directly from §33a (2) WpHG, in accordance to which "*in particular the prices of the financial instruments, the costs involved in order execution, the speed, the probability of execution and the processing of the order, as well as the scope and type of order"* must be taken into account as criteria. It was checked whether the relevant criteria had been weighted in the best execution policies (Table 1).

No weighting can be recognized in 8.0% (2008: 10.7%) (absolute: 6 (2008: 8)) of the policies. In two cases no details are provided, in the other four cases the criteria have not been prioritized. Weighting of relevant criteria can be recognized in 92.0% (89.3%) of policies (absolute: 69 (67)). In 13 (12) policies percentage values (e.g. price: 80%, external costs: 20%) are named for individual criteria; in 56 (55) policies a ranking, e.g. price priority over speed, can be observed. In both studies only one policy provides a recognizable ranking of criteria and uses real-time market data to identify the execution venue providing the best result for the individual order.

Table 1: Recognizability of the weighting of the relevant criteria and implementation of best execution processes

Number of policies evaluated			**75** (75)
No details	**2** (2)	No recognizable weighting	**6** (8)
No ranking of criteria recognizable	**4** (6)		
Ranking of the criteria recognizable **and** dynamic order execution (real time)	**1** (1)	Recognizable weighting	**69** (67)
Ranking of the criteria recognizable	**55** (54)		
Percentage weighting of the criteria	**13** (12)		

Concerning the different implementation options for best execution processes and systems, Table 1 shows an important result: For both data analyses (2008 and 2009) it turns out that an overwhelming majority of firms prefers a static implementation approach for best execution and does not utilize the competitive potential stated in recent studies.

4.2 Legal Requirements for the Best Execution Policies

According to §33a (6) No. 1 WpHG an investment firm must inform *"its clients of its best execution policy before providing investment services for the first time and obtain the clients' acceptance of its policy."*

Specific minimum requirements with regard to the scope and design of the contents are linked to this obligation specified in §33a (5) and (6) WpHG in conjunction with §11 (4) WpDVerOV: investment firms must show how they aim to achieve the best possible result for order execution in various categories of financial instruments and the crucial factors for selecting a venue must be named, and finally a list containing at least those venues must be provided which can be considered as consistently achieving the best possible results.

Figure 4: Legal requirements

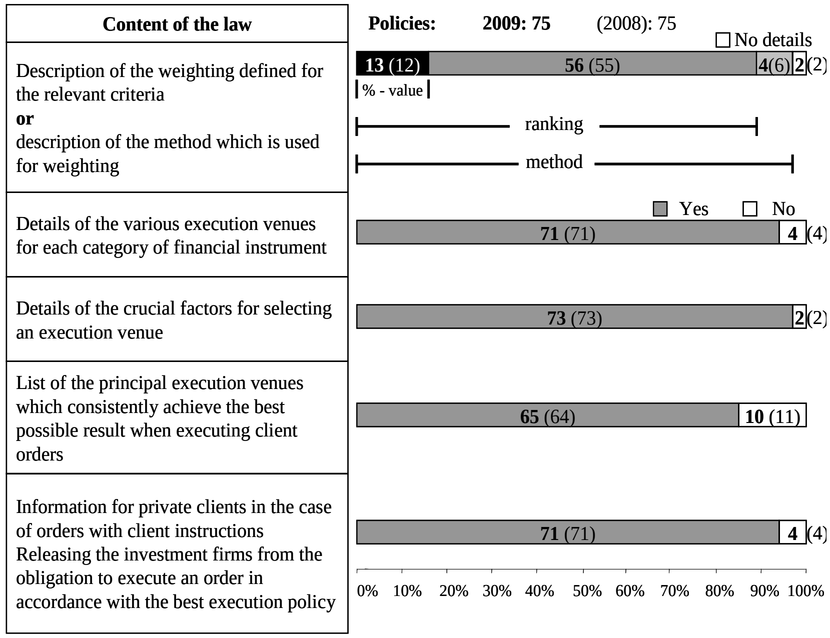


Figure 4 shows the results for the legal requirements which. It displays the requirements and the levels of fulfilment.

<u>Description of the Weighting Implemented or Description of the Method</u>

§ 33a (6) No. 1 WpHG in conjunction with §11 (4) No. 1 WpDVerOV requires that policies must contain either a *"description of the weighting implemented for the relevant criteria to achieve the best possible result"* or "*a description of the method which is used for this weighting*.*"* In the analysis a distinction is made between three examination criteria (percentage, ranking, method). Policies which contain at least information on a particular procedure are acknowledged to have a method (e.g. "the bank assumes that their clients would like to achieve the best price"). In the policies both analysed in 2009 and 2008, this applies for nearly all investment firms (97.3%) except for two which did not provide any details.

It was investigated whether the weighting defined was expressed as a percentage value or by a particular ranking. In 17.3% (16.0%) of the best execution policies concrete percentage values are specified for individual criteria (e.g. price: 80%; external costs: 20%), in 74.4% (73.3%) a ranking, e.g. price has priority over speed, is provided.

<u>Details of Execution Venues for each Category of Financial Instrument</u>

§33a (5) No. 1 WpHG (first half sentence) requires *"details of the various execution venues with regard to each category of financial instrument."* This provision specifies that a category must be assigned to the venue(s) when a policy is created. The following variants of policies exist: either precisely one venue is specified for one category or several venues are specified for one category or several venues are specified for multiple categories simultaneously. In 94.6% of the policies an assignment of category to venue can be recognized.

<u>Details of the Crucial Factors for Selecting an Execution Venue</u>

In addition in accordance with §33a (5) No. 1 WpHG, *“the crucial factors for selecting an execution venue”* must also be specified. In the analysis, information was taken into account whether documents reveal that the firms used various factors for the evaluation (e.g. “in particular the recognizable factors price and costs which arise through execution at an execution venue are used for the evaluation.”). Like in 2008, nearly all policies, i.e. 97.3%, provided comprehensive details.

List of the Principal Execution Venues

A further obligation derives from §33a (5) No. 2 WpHG in conjunction with §11 (4) No. 2 WpDVerOV according to which a *“list of the principal execution venues* […] *at which the investment firms can consistently achieve the best possible results when executing client orders”* must be contained in the policies. In 86.7 % (85.3%) of the policies examined in 2009 this list is provided either as a text list or as a table in the appendix.

Information for Private Clients about Execution in accordance with Instructions

Finally, in accordance with §33a (6) No. 2 WpHG in conjunction with §11 (4) No. 3 WpDVerOV firms must inform “*private clients expressly that when instructed by the client the investment firm will execute the order according to these client instructions and will therefore not be obliged to execute the order in accordance with its best execution policy to achieve the best possible result.”* Both in the 2009 and the 2008 analysis, this information is clearly emphasized in most execution policies, i.e. in 94.7%.

4.3 Analysis of the Execution Venues Specified

Finally, details regarding the ranking of the venues were examined. Obviously, from a competitive view, this ranking is highly relevant for execution venues. Therefore, it is of interest how policies list and rank the different venues. Table 2 shows the distribution of the nominations for various securities groups, classified according to whether they can be traded domestically or abroad. It is noticeable that firms primarily prefer abstract and summarizing descriptions to document their choice of a venue (e.g. domestic execution venue, foreign exchange) instead of naming specific venues. In addition to the abstract details relating to the venues, the table also includes special cases, such as forwarding, fixed-price business and also obligations to provide instructions. A concrete venue is named only in every fourth policy (26.6%; 2008: 24%).

Table 2: Execution venues for different securities groups

Tradable domestically	Shares	Bonds	Certified derivatives	Investment shares	ETF	Other securities	Other financial instruments
Domestic execution venue	42 (43)	42 (43)	41 (42)	5 (5)	4 (4)	11 (10)	4 (4)
Domestic floor trading system	2 (4)	4 (5)	4 (5)	1 (1)	4 (4)	0 (0)	0 (0)
Domestic exchange	7 (6)	11 (10)	12 (11)	6 (6)	9 (9)	5 (5)	6 (6)
Domestic home exchange	0 (0)	3 (2)	2 (2)	0 (0)	0 (0)	0 (1)	1 (1)
Others (e.g. forwarding)	1 (1)	3 (4)	4 (5)	1 (1)	0 (0)	1 (1)	1 (1)
Fixed-price business	1 (1)	2 (3)	0 (1)	0 (0)	0 (0)	2 (3)	0 (0)
Instructions	0 (0)	1 (1)	1 (1)	46 (46)	2 (2)	34 (34)	35 (35)
No details	2 (2)	1 (1)	3 (3)	13 (13)	49 (48)	19 (19)	9 (9)
Not possible	0 (0)	0 (0)	0 (0)	2 (2)	0 (1)	0 (0)	1 (1)
Specific execution venue	**20 (18)**	**8 (6)**	**8 (5)**	**1 (1)**	**7 (7)**	**3 (3)**	**18* (18)**
Total	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)
Tradable abroad	**Shares**	**Bonds**	**Certified derivatives**	**Investment shares**	**ETF**	**Other securities**	**Other financial instruments**
Foreign execution venue	2 (2)	5 (5)	3 (3)	1 (1)	1 (1)	2 (2)	13 (12)
Foreign exchange	27 (27)	18 (17)	17 (17)	0 (0)	0 (0)	11 (10)	1 (1)
Others (e.g. forwarding)	4 (4)	8 (6)	8 (8)	2 (2)	2 (2)	2 (2)	2 (2)
Fixed-price business	1 (2)	1 (1)	0 (0)	0 (0)	0 (0)	0 (1)	1 (2)
Instructions	36 (35)	34 (36)	34 (34)	45 (46)	45 (46)	34 (34)	34 (34)
No details	4 (4)	9 (10)	13 (13)	25 (24)	25 (24)	26 (26)	23 (23)
Not possible	0 (0)	0 (0)	0 (0)	2 (2)	2 (2)	0 (0)	1 (1)
Specific execution venue	**1 (1)**	**0 (0)**	**0 (0)**	**0 (0)**	**0 (0)**	**0 (0)**	**0 (0)**
Total	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)	75 (75)

* 16 (16) nominations here for Eurex

For the categories of financial instruments which can be traded domestically, the abstract label “domestic execution venue” is chosen most frequently for the first three securities groups (shares, bonds, certified derivatives). For investment shares, other securities and other instruments orders are mostly accepted with explicit instructions only. Firms most frequently provide - with 20 (18) nominations - a specific execution venue for the securities group *shares*.

As in 2008, the securities group *other financial instruments* was named 18 times, thereof 16 nominations for Eurex. The term “foreign exchange” is frequently used for financial instruments which can be traded abroad; with one exception, no specific details are provided here. It is noticeable that for all securities groups order executions in most cases are only possible with instructions or no details about the execution venues are provided at all.

Due to the few specific details about the execution venues and their ranking, a more detailed analysis was only performed for the securities group *shares*.

In Table 4, 20 (18) policies are listed which at least named one specific venue for this securities group and documented a recognizable ranking.

Table 3: Segmenting of the securities group shares

Segment	DAX 30			Other DAX (MDAX, TECDAX, SDAX)			EUROSTOXX 50, DJ STOXX 40, NASDAQ 100			Other domestic shares		
Execution venue	Freq.	Rank 1	Rank 2	Freq.	Rank 1	Rank 2	Freq.	Rank 1	Rank 2	Freq.	Rank 1	Rank 2
Xetra-Best	4 (4)	4 (4)	0 (0)	4 (4)	4 (4)	0 (0)	3 (3)	3 (3)	0 (0)	1 (1)	1 (1)	0 (0)
Xetra	11 (14)	6 (8)	5 (5)	13 (14)	6 (8)	7 (5)	8 (10)	4 (5)	4 (4)	9 (11)	5 (6)	4 (4)
Berlin	1 (2)	0 (0)	1 (1)	1 (2)	0 (0)	1 (1)	2 (2)	1 (1)	1 (0)	1 (2)	0 (0)	1 (1)
Düsseldorf	3 (2)	0 (0)	3 (1)	1 (2)	0 (0)	1 (1)	2 (2)	1 (1)	1 (0)	1 (2)	0 (0)	1 (1)
Frankfurt	5 (4)	2 (0)	3 (3)	5 (4)	2 (0)	3 (3)	5 (4)	2 (1)	3 (2)	6 (4)	3 (2)	3 (2)
Hamburg	3 (2)	3 (1)	0 (0)	1 (2)	1 (1)	0 (0)	3 (2)	3 (2)	0 (0)	1 (2)	1 (2)	0 (0)
Hannover	2 (1)	2 (0)	0 (0)	0 (1)	0 (0)	0 (0)	0 (1)	0 (1)	0 (0)	0 (1)	0 (1)	0 (0)
Munich	1 (2)	0 (0)	1 (2)	1 (2)	0 (0)	1 (2)	1 (2)	0 (0)	1 (2)	1 (2)	0 (0)	1 (2)
Stuttgart	1 (2)	0 (0)	1 (1)	3 (2)	2 (0)	1 (1)	4 (2)	1 (1)	3 (0)	3 (2)	2 (0)	1 (1)
Tradegate	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)
OTC	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)
Domestic floor trading system	3 (3)	0 (0)	3 (3)	3 (3)	0 (0)	3 (3)	4 (4)	1 (1)	3 (3)	5 (4)	2 (2)	3 (2)
Domestic home exchange	4 (2)	0 (0)	4 (2)	4 (2)	0 (0)	4 (2)	3 (2)	0 (0)	3 (2)	3 (1)	0 (0)	3 (2)
Fixed-price business	3 (3)	3 (3)	0 (0)	3 (3)	3 (3)	0 (0)	3 (3)	3 (3)	0 (0)	3 (3)	3 (3)	0 (0)
No details[3]	2 (3)	0 (0)	2 (3)	2 (3)	0 (0)	2 (3)	6 (6)	2 (1)	4 (5)	7 (6)	1 (0)	6 (6)
Total		**22**[1] (18)	**23**[2] (21)[2]		**20** (18)	**23**[2] (21)[2]		**23**[2] (22)[1,2]	**23**[2] (18)		**20** (19)[1]	**23**[2] (21)[2]

[1] The execution venues Hamburg / Hanover were counted twice in Rank 1

[2] The execution venues Frankfurt/ Stuttgart/ Düsseldorf/ Berlin werecounted four times in Rank 1 or 2

[3] Some best execution policies do not contain specific details for every segment: for example, in the segment „EUROSTOXX 50“ the two (one) nomination(s) for Rank 1 mean(s) that two (one) investment firm provided no details about order execution in this segment, but did document a ranking for the other segments (e.g. DAX 30). As regards the four (five) nominations for Rank 2: the best execution policies only envisage one specific execution venue being ranked first, but no further information is providedabout alternative execution venues in the following ranks.

Specifically, the segments[iii] DAX30, other DAX, EUROSTOXX 50, DJ STOXX 40, NASDAQ 100 and other domestic shares were analyzed.

The venue mentioned most frequently in all segments is Xetra. In some policies precisely one venue is prioritized and occupies rank 1; in these cases no specific nomination for rank 2 exists - a “domestic floor trading system” or “domestic home exchange” was ranked second. This is why these abstractly mentioned execution venues are also contained in the table. As execution venues of equal rank are also named twice or four times in the policies, these multiple nominations result in a value greater than 20 (18) in the bottom line. In three execution policies order execution as fixed-price business is placed in Rank 1.[iv] It is noticeable that - like in 2008 - regional exchanges are rarely placed in rank 1.

The analysis reveals a remarkable finding: The substantial changes of the European trading landscape triggered by MiFID are not reflected at all in any best execution policy analyzed in the data of 2009. This becomes apparent in the minor changes identified in Table 4 and the fact that no new venue (MTF) is considered in any best execution policy.

5. Summary and Outlook

This paper compares the implementation of European best execution obligations in Germany based on analyses of best execution policies in Q2/2008 and Q3/2009. The analysis aims at identifying changes in the firm’s policies as a result of the mandatory annual reviews and investigates whether recent developments in the trading landscape are reflected.

We analysed 75 policies of the 100 largest financial institutions and of the 15 largest online brokers in Germany. 59% (44) policies remain unchanged compared to 2008. 41% (31) of the firms provided an updated version of their policy.

The key message of the study is that the results of the two data analyses are largely in line and no substantial changes can be identified although the European securities markets were affected by major changes concerning the competitive landscape and the number of available venues. In both years, the policies show that the minimum legal requirements have recognizably been implemented. Like in 2008, in 2009 only one policy mentions the use of a dynamic order execution approach, i.e. applying real time market data to achieve best execution. Furthermore, a significant heterogeneity can be recognized between the policies: some are extremely comprehensive and describe the selected procedure in great detail, while others are limited to minimum details and are not very meaningful for clients.

This also applies for the details about the venues: Only in 26.6% (24.0 %), i.e. in approximately every fourth policy, the venues are named specifically or a ranking is provided.

In earlier studies (Gomber et al., 2007), best execution principles are most frequently named as key competitive factor. However, in summarizing it must be noted that the use of policies as competitive instrument cannot be recognized in a large majority of German financial institutions. This is surprising given the intensified competition between incumbent and new trading venues resulting in market shares shifts and cost reductions. These changes are not reflected in any policy so far. Orders are still primarily executed on domestic markets or (if only tradable abroad) on the foreign exchange respectively. Furthermore, MTFs are not considered at all in any best execution policy.

As policy implication of our research and as an input for the currently ongoing MiFID review of the EU Commission (with a final new regulation scheduled for 2012), it must be noted that these changes might possibly be implemented by firms internally but they are not listed explicitly in the policies. Nevertheless, from the client's viewpoint it is desirable that these analyses and their concrete results should be communicated in a more transparent form so that the policies can function not just as regulatory necessity but also as driver of competition between firms and also between venues. For future research, both analyses serve as a basis for benchmarking best execution policies over longer time periods, e.g. to monitor whether firms change their processes and systems from a static towards a dynamic approach for order routing and execution. Also, studies regarding the client benefits of offering access to the new MTFs or analyses regarding the MiFID perception from a client perspective and its potential implications in terms of changes in reputation and performance of investment firms represent challenging research topics.

6. References

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[i] The WpHG in the version of 01 November 2007, amended by the law for implementing the Markets in Financial Instruments Directive (DIR 2004/39/EG, MiFID) and the implementing directive (DIR 2006/73/EG) of the Commission (law for implementing the financial markets directive) of 16 July 2007, Federal Law Gazette I 2007, 1330 of 19 July 2007

[ii] Ordinance Specifying Rules of Conduct and Organisation Requirements for Investment Firms (WpDVerOV) of 20 July 2007, Federal Law Gazette I 2007, p. 1432 of 23 July 2007

[iii] A segment is divided into three columns: the frequency (freq.) specifies how often an execution venue was named in total. Rank 1 and Rank 2 specify the number of times the execution venue concerned was nominated for this rank. The total of Rank 1 and Rank 2 does not necessarily match the frequency because nominations from Rank 3 and above were taken into account, but for reasons of clarity have not been included in this table. Thus, for example, Xetra for the DAX 30 values is listed six (eight) times in Rank 1 and five (five) times in Rank 2; two (one) further nomination(s) were (was) registered, but with regard to the prioritization this was counted in one of the lower ranks.

[iv] In these cases investment firms offer order execution primarily as fixed-price business. However, if fixed-price business does not come about, the order is directed to a concrete execution venue (e.g. Xetra) which occupies Rank 2.