

Stock Exchanges and Regional Competitiveness: The Case of Small German Exchanges

1. Introduction

The analysis of financial centers focuses mainly on the competition between and changing roles of the major places. In the European context thus usually London, Paris, Frankfurt/Main and other national financial centers have become objects of investigation (see Dietl et al. 1999; Grote et al. 2000; Laulajainen 2001 or Lo and Schamp 2001).

The findings show that the recent reorganisation of financial centers in Europe under the conditions of

- widespread use of ICT with the possibility of remote access to exchanges,
- the development of innovative products on financial markets,
- and the advent of a single currency

affects structures, organisation and specialization of the main actors within financial centers, i.e. banks and exchanges.

Stock exchanges as important institutions of the financial system have lost their former position as „natural monopolies“, which was based on legal and territorial exclusivity. Increased competition between exchanges and new forms of cooperation are two sides of the same coin. The planned but failed merger between London Stock Exchange and Deutsche Börse AG in Frankfurt/Main in 2000 and the merger of the exchanges in Amsterdam, Brussels and Paris to Euronext in the same year are two prominent examples of this process.

The following paper puts a focus on less prominent features of current restructuring, namely the roles and strategies of small German exchanges. Due to the federalist tradition of Germany six „regional exchanges“ exist beside the leading German bourse „Deutsche Börse“, originating from the stock exchange in Frankfurt/Main. The relationship between the different German stock exchanges has undergone changes in recent years, strengthening the position of the Frankfurt-based exchange in the international competition. The small exchanges have to redefine their positions in the course of this development. In order to analyze their options the general functions and possible roles of stock exchanges in the discourse of regional competitiveness is discussed first. These options can be described by the extreme positions of the role as regional financial institutions, collecting sensitive regional economic knowledge and thus forming part of the regional business environment and the role

as „footloose“ firms which compete in a despatialized market without regards to regional embeddedness.

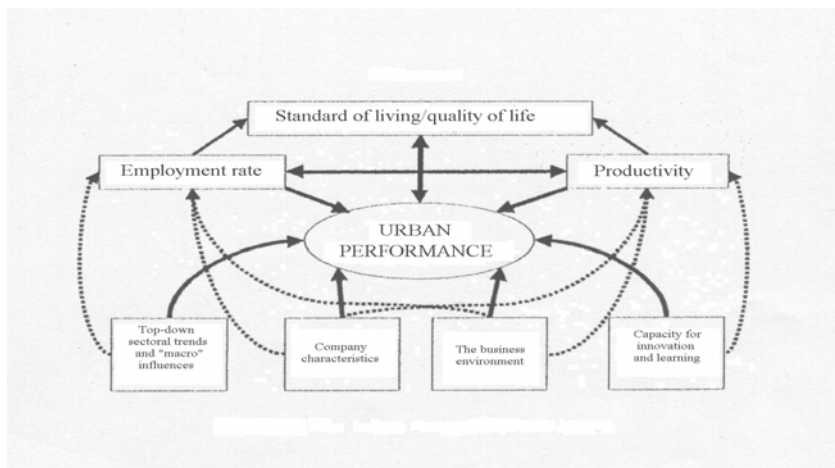
After exploring the general trends in stock exchanges the institutional change within German stock exchanges will be analysed. The look at actors and strategies will show that the above sketched „regionalization option“ is found less frequently than the „specialization option“.

2. Stock Exchanges and the discourse of regional competitiveness

Adapting the concept of competitiveness to the discussion of urban and regional development means to ask for the factors which make cities or regions „perform better than others in so far as the income and employment generated within their boundaries exceed those of others“ (Begg 1999, 798). In criticism to such a simplistic view the discussion about sustainable regional development shows that income and employment are too simple as indicators for „successful“ regions. But regardless how the output is evaluated the key question remains: what are the reasons for the differences in the relative attractiveness of locations, which factors lead to competitive advantages of one region in relation to another?

The research on „successful“ regions of the last decade has shown, that the development of a city, metropolitan area or a region is determined by various factors, which can roughly be distinguished into „economic“ – quantifiable - determinants (factors of production, infrastructure and similar) and „strategic“ – qualitative - determinants, which include policy factors and institutional design (Kresl 1995). This differentiation pays tribute to the empirical findings, that the analysis of „hard“ potential factors such as the industrial structure, the accessibility by road or train or the quality of the labour force, is not sufficient in order to explain different paths of development. „The more and more explicit coupling of economic performance with the existence of particular social institutions“ (Lorenzen 1999, 5) characterizes the changing focus of economic geography and regional studies in the 90s.

Fig. 1: The Urban/Regional competitive maze (Source: Begg 1999)



The schematic sketch of „the urban competitiveness maze“ by Begg (1999, 820) wants to illustrate these different factors and their complex interrelations (Fig 1)ⁱ. The four categories of the „input“ side – sectoral trends, company characteristics, the business environment and innovation and learning – are similar to those used by Porter to characterize „the competitive advantage of nations“ (1998).

The first category captures the main influences from outside on economic activities in a city or region, acknowledging that the development of a specific city or region cannot be understood without detailed knowledge about the economic, political and social framework on a national and supra-national scale.

The other three categories try to capture different dimensions of the specific location, each of them encompassing quantitative and qualitative factors required by regional actors to develop innovative strategies, institutions, or enterprises (Begg 1999, 802). Aspects of innovation capacities, different kinds of knowledge and institutional learning are important concepts within all three dimensions (Lorenzen 1999).

The access to capital is one crucial factor for emerging or expanding industries which are the expected outcome of localized learning and innovation processes. They depend on the primary function of financial institutions: intermediation of capital by transformation of savings into investment. The definition of venture capital already indicates that financing new industries cannot be explained by a simple model of capital allocating where the profit rates are highest. The key attributes of venture capital investment are:

- „long-term investment, requiring up to 10 years for return, and
- involving potential equity participation for the venture capitalist, whose experience and specialized skills add value to the investment through participation“ (Thompson 1989, 67, see also Kulicke 1997 133f.).

In his analysis of the „geography of venture capital“ Thompson points out, that a realistic model of venture capital should include „institutional networks, spatial constraints in day-to-day operations and decision making, personal contact histories and patterns, historically influenced investment philosophies and areal preference patterns“ (1989, 88). There are alternative financing options such as

- Public promotion/funding programmes
- Credit financing
- Business Investment Capital, which itself can be differentiated into:
 - Public companies (large companies, listed and traded on stock exchanges)
 - Private companies (limited partnerships for investing in venture situations)
 - Bank-related companies (companies set up to allow banks to circumvent laws about owning small businesses)
 - Large corporate venture companies (venture capital subsidiaries of major corporations)
- Special start up-schemes at exchanges and
- Informal investors (so called „Business Angels“).

Which form of financing is preferred depends on the economic history of countries and on contemporary regulations. But regardless which option of finance is followed in a special region, the mentioned studies show that the information- and contact-intensive process of raising venture capital is nothing less than a despatialized process requiring anonymous capital, but is on the contrary extremely dependent on informal /tacit knowledge about the circumstances of investment. Therefore the financial institutions of a region can be considered as integral parts of local or regional „social structures of innovation“ (Florida and Kenney 1988). Looking at the small German Stock Exchanges the question of regional embedding will be an important one. But before the detailed look at the German exchanges a general description of institutional change in the financial sphere is presented.

3. Stock Exchanges: Institutional change and competition

In Germany the traditional way of financing business is by bank credits, whereas in the anglo-american sphere the emission of equities is a far more important source of business financing. The German financial system is therefore called „bank-, or „credit-oriented“, the anglo-american systems are described as „exchange-, or „market-oriented“. Banks and exchanges are alternative institutions which can perform the sketched primary function of financial systems – transforming savings into investment. But their function for the primary capital circulation describes the contemporary situation of financial institutions only partly.

Stock exchanges as institutions of the financial sector have experienced profound changes during the last decades. Trends as securitization, deregulation, automatization and de-spatialization all had effects on the size, number and organization of stock exchanges.

Securitization – the tendency to move finance capital not by credit but by „securities“ of different and more and more sophisticated kinds – has increased the turnover at stock exchanges on a global scale. Financial transactions to a large extent have lost their direct relation to the producing sphere, a secondary capital circulation – largely independent from the „real sector“ - has an increasing importance for the economy (Krätke 1995, 117ff.).

Deregulation has facilitated the access of foreigners to exchanges all over the globe. Whereas some decades ago trading at exchanges was usually limited to a privileged, exclusive club of domestic members, exchanges today compete for new participants. Finance capital has thus increased its mobility tremendously.

Automatization has helped to standardize products of exchanges, making rather complex things as financial futures comparable and negotiable. The development in information and communications technology eventually is responsible for de-spatialization, which has changed stock exchanges in a rather fundamental way. The whole idea of exchanges was about making people trade in a fixed location under conditions which are controlled by public bodies (as in continental Europe) or

institutions based on mutual agreements (as in Great Britain or the United States). Meanwhile the physical presence of trade partners (or their intermediaries) is no longer necessary as business is made through computer-based trading systems. The exchange floor has lost its importance almost completely. Some of the most important exchanges, as the NASDAQ or EUREX, the Swiss-German financial futures exchange, only exist virtually, as computer system. Remote access to exchanges – the possibility to trade in a computer-based exchange from a terminal situated anywhere in the world – is possible at nearly all important exchanges.

This has two main consequences: The first is about the competition between the exchanges – which can be better understood when exchanges are viewed as firms. The second is about new competitors, the so called „Automated Trading Systems“ (ATS, such as Tradepoint, Jigsaw or Knight Trading) which offer nearly the same services as stock exchanges.

„Normally an exchange is thought to be an organized market of securities“ (Di Noia 1998, 10). This definition has its origin in the history of exchanges, where especially the aspect of authorized regulations of the market was important. This aspect of regulation even today distinguishes exchanges, even if they are organized by private companies, from other ATS which have developed as serious competitors to exchanges. But until some decades ago (in Germany only about 15 years) exchanges were legal monopolists due to different currencies and strict regulations which required personal/physical presence in order to trade at an exchange.

This situation has changed completely, so Di Noia (1998, 11ff.) argues that today it is more adequate to think of exchanges as firms which offer different kinds of services – listing, trading, settlement and price information services. These corporations compete „with other firms and (are) forced to produce the best price-quantity-quality combination feasible“ (ibid, 13). The special feature of stock exchange is the safety standard offered by the required qualifications for membership either as listed firm or as trader on the exchange. Automated trading systems free-ride on the quality of information provided, as the usually trade in securities listed at one of the big exchanges.

The customers of exchanges can be divided into two groups – direct and indirect customers. The two main groups of direct purchasers of the exchanges' services are the issuers of securities who pay fees in order to be listed on an exchange and financial intermediaries who pay in order to be admitted to tradingⁱⁱ. Indirect customers are all individuals, institutional investors or other financial intermediaries that want to trade in securities and therefore send orders to admitted traders to be executed on an exchange. These customers can either choose the intermediary through which to trade or the exchange where to trade.

The main factor which determines the choice of an exchange for investors and their intermediaries is liquidity, the total turnover in their requested securities. This is true for firms going public and intermediaries or direct traders on exchanges, as „bluntly, liquidity attracts liquidity“ (Di Noia 1998, 20). Other factors as transaction costs, security, functionality and stability of the computer system or the regulatory framework and its supervision are comparably irrelevant. This is the main reason for the

different forms of cooperation, mergers and implicit mergers which have led to a concentration process in stock exchanges in the last years. „An implicit merger between two exchanges consists of an agreement such that the set of securities, originally listed in one exchange, is listed by the other exchange and remote access is offered to the traders of each exchange, with reciprocity and without further requirements“ (DiNoia 1998, 21f.). These agreements increase liquidity on both exchanges and make the choice of an exchange easier for firms looking for a place to be listed and for intermediaries looking for a place to trade on.

There is a lot of literature on the emerging global financial system and the specializations of different nodes in this system. On the global level the development of a system of globally important markets, which are based in New York, London, Tokyo has been analyzed by Sassen (1991). But one of the most liquid exchanges is NASDAQ – a completely computerized, „de-spatialized“ stock exchange. The markets for financial futures are nearly fully computerized as well. This system of globally important financial centres is backed by a number of smaller exchanges in the need of finding their position in the changing framework. The European exchange scene – after two decades of intensified financial integration – is characterized by overcapacities, requiring consolidation (Laulajainen 2001). London has long been the dominating European exchange, challenged in recent years by Frankfurt. Paris has increased its position after the merger with Amsterdam and Brussels. So the position of the leading exchange on the European continent is still under competition (Dietl et al 1999, Grote et al. 2000, Franke 2002).

This situation is the context where the possible position of „regional stock exchanges“ will be discussed. As an understanding of the overall situation in Germany is necessary, a general overview of the financial system in Germany in the last decades will be given in the next part.

4. Development of German Stock Exchanges: Frankfurt and the rest

As mentioned before the German financial system is often described as a „bank-“ or „credit“-oriented system in contrast to the „market-, or „exchange“-oriented systems of the United States or Great Britain (Hellwig 2000, 3). By these attributes is expressed, that the German business to a large extent is financed by bank credits, whereas in the two other mentioned countries enterprises tend to finance by the emission of equities. After World War II the financial system in the Federal Republic of Germany could be characterized for some decades by following aspects:

- after a phase of forced decentralisation directly after the war, the growing integration of West Germany into economic, political and military structures of the western world lead also to a recentralisation of financial institutions;
- a number of big banks, most of them with their headquarters in Frankfurt, dominated industrial financing, holding large shares of big industrial enterprises („Deutschland AG“);

- commercial banking was (and still is) dominated by savings banks and credit (Genossenschaften), especially the savings banks and their central organizations are still protected politically as important instruments of regional policy;
- eight stock exchanges existed, located in the main economic centres (in alphabetical order: Berlin, Bremen, Düsseldorf, Frankfurt, Hamburg, Hannover, Stuttgart, München). Some of these exchanges have a long tradition dating back to historical importance as merchant cities (e.g. Hamburg and Frankfurt founded in the 16th century, Berlin and Bremen in the 17th century).

This structure has been the result of political decisions after World War II and longer historical trends. The political consensus on federalist structures is legally fixed, as – for example - the law on stock exchanges (Börsengesetz) makes sure, that there should be a regionally structured system of stock exchanges and their supervision.

In spite of this federalist ideal, the Frankfurt exchange developed – because of the growing number of German and foreign banks and the proximity to the national bank – the Deutsche Bundesbank – better than the other exchanges and took over the leading role of the German exchanges from the end of the 1950s. Grote (2000) distinguishes three stages of development after World War II. The first phase of reorganisation after the war (1945-1958) saw the main political and economic decisions for the leading role of Frankfurt (location of the central bank, recentralisation of the big banks, which had been divided directly after the war). The years from 1958 to 1973 are characterized by the consolidation of the national position of Frankfurt. Since the mid-70s – after the end of the Bretton Woods-System – the internationalisation of Frankfurt's financial business is the main trend.

This led to a growing market share of Frankfurt's stock exchange. At the end of the 80s two thirds of total stock exchange turnover was counted in Frankfurt (von Metzler 1999, 299). Düsseldorf's - the second biggest stock exchange in Germany. – share diminished from 35% in 1973 to 15% in 1988 (Grote 2000, 19).

The end of the 80s saw an intensified discussion on the future of the German financial system. The German financial market was considered overregulated and unable to respond to the challenges from outside as deregulation in many countries, the development of new financial instruments, internationalisation, and the increased use of information technology. „In a rare alliance, the domestic banks together with foreign banks – seeking entry into the German financial market – and the government that wanted to finance its own debt pressed for liberalisation of financial markets“ (Grote 2000, 22). Therefore a number of legal and organizational reforms were launched in order to promote the German financial market. The main features of these reforms are listed in Table 1. They all contribute to the change of the German financial system to a more „exchange“ or capital market based system. This has led to tremendous increases in the number of listed companies at the exchanges and of share holders. The market capitalisation in relation to the gross national product has also increased quite intensively in the last years, but lies with 67,6% in 2000 still under the average of the EC countries of 108,1%.

Table 1 : Financial Market Promotion in Germany – Federal initiatives and organisational reforms 1986-2001

1986	Reorganisation of the „Working Group of German Stock Exchanges“ with residence in Frankfurt
1988	17 domestic banks form a holding society for the German Financial Futures Exchange
1989	<ul style="list-style-type: none"> - Reform of Stock Exchange Law: regulatory preconditions for trade in financial futures and electronic exchanges - Interbank Information System IBIS is implemented (extension to an automated trading system is projected)
1990	<ul style="list-style-type: none"> - Five regional clearing associations merge into the limited company Deutsche Kassenverein AG, Frankfurt - Trading hours of all exchanges are extended to three hours per day - German Financial Futures Exchange (Deutsche Terminbörse DTB) takes up business - Reorganisation of Frankfurt Stock Exchange: shares of new limited company Frankfurter Wertpapierbörse AG (FWB) are held by domestic (79%) and foreign (10%) banks and brokers (11%)
1991	<ul style="list-style-type: none"> - Tax on exchange turnovers is abolished - IBIS takes up business as electronic trading system fully integrated into FWB - Market share of Frankfurt Stock Exchange on domestic market: 70,4%
1992	German exchanges except FWB join in Deutsche Börsenbeteiligungsgesellschaft mbH (DBBG) in preparation for the reorganisation in 1993
1993	Reorganisation: Deutsche Börse AG is founded as holding for FWB AG, DTB AG, Deutsche Kassenverein AG. Shares held by: German Banks (70%, but none more than 15%); Foreign Banks (10%), Brokers (10%); DBBG (10%)
1995	<ul style="list-style-type: none"> - Reorganisation of Stock Exchange Supervision: Federal Office for Securities Trade in Frankfurt - Deutsche Kassenverein AG is integrated into Deutsche Börse AG
1997	<ul style="list-style-type: none"> - Introduction of New Market at FWB - Electronic Trading System XETRA is implemented (trade in equities only)
1998	<ul style="list-style-type: none"> - Merger between DTB and Swiss Financial Futures Exchange: Eurex - XETRA trade in bonds starts; 66% of all equities turnover is already in XETRA
1999	Merger of the stock exchanges in Hamburg and Hannover
2000	<ul style="list-style-type: none"> - Trading hours are extended: 9 a.m. to 8 p.m. by initiative of the small exchanges - Trade at exchanges at special German holidays is promoted by Deutsche Börse AG
2001	Deutsche Börse AG goes public, thus changing the ownership structure (Deutsche Börsenbeteiligungsgesellschaft reduces to 7,5%)

Sources: Frankfurter Finanzmarktbericht, different editions from 1991 to 2001; Deutsche Börse AG 1994; Frankfurter Wertpapierbörse 2000

Representatives of non-Frankfurt stock exchanges and politicians of the „Länder“ were from the beginning rather critical about this policy of „financial market promotion“, fearing that promotion of the „German“ financial market would result in promoting the already most important institutions in Frankfurt.

This fear is not unfounded, as the promoters of the reforms, especially representatives of the Frankfurt stock exchange and big banks, but also a former president of the Bundesbank, expressed their dissatisfaction with the fragmented structures of the German financial market rather openly (Bördlein 1993, 200ff.). As long as the eight stock exchanges worked together in the above mentioned ADW, there was always an attempt to sketch a division of labour between one leading international stock exchange and independent „regional exchanges“. The small German exchanges hold a share of 7,5% of the Frankfurt-based Deutsche Börse AG formed in 1992/1993, which already shows by its name the claim as outstanding stock exchange in Germany. An action group „Finanzplatz e.V.“ promotes the „Finanzplatz Deutschland“ with the slogan „The Natural Choice“. Looking at the publications of this initiative one gets another impression, as they promote Frankfurt Stock Exchange as highly innovative and dynamic exchange, the other exchanges are not even mentioned by name. Already in 1994 a strategy paper of the Deutsche Börse AG made sure that the management in Frankfurt does not see a need for independent regional exchanges.

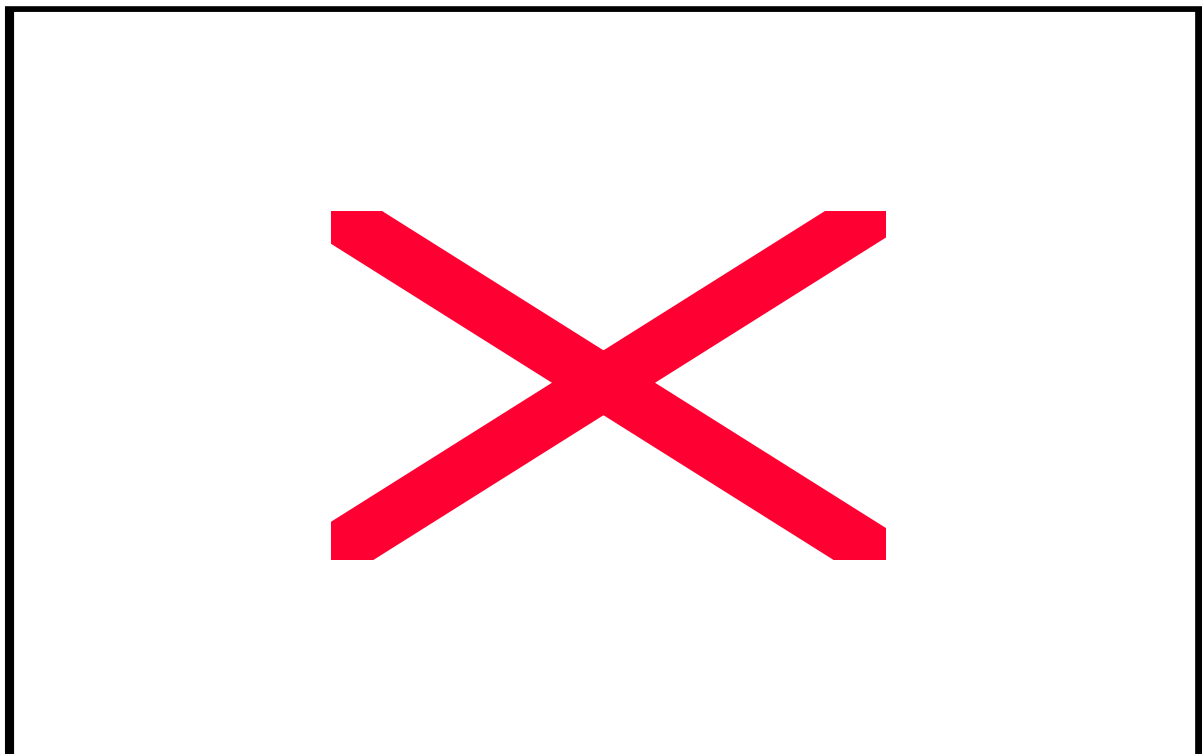
The strategies resulting from this claim are not surprising, as the following example shows: When the electronic trading system XETRA was launched, the managers of the Frankfurt exchange wanted to offer the access to this system exclusively. Only by intervention of „Länder“ politicians the free access of the other exchanges to XETRA was fixed in the 3. Financial Market Promotion Law (3. FinFördG) 1998. The Deutsche Börse AG criticized this additional paragraph to the 3. FinFördG (FAZ 12.02.1998).

The main focus of Deutsche Börse AG is the international competition. The strategy of the recent management, backed by a board which is lead by representatives of the big banks, can be considered only partly successful. On the positive side the merger between the German financial futures exchange (DTB) and the Swiss Options and Financial Futures Exchange (SOFFEX) in 1997 to EUREX can be counted. EUREX is the leading exchange for financial futures. Not successful was the attempt of a merger with London Stock Exchange in 2000. This project was commented upon rather critical by independent experts in Great Britain and Germany, because the strategy and the division of labour between the long-time rivals was not made clear beforehand. The project failed officially because of the intervention of OM, a Swedish competitor.

On a national scale the market share of the Frankfurt exchange has increased even further, mostly due to the turnover of XETRA. Figure 2 shows the market shares of XETRA (completely computer based, remote access possible), Frankfurter Wertpapierbörse (FWB, computer-supported trading floor) and the other German stock exchanges respectively. Adding the shares of XETRA and FWB, the share of Frankfurt lies distinctly over 80%, with significant differences between the instruments. The share of

XETRA is most important for domestic equities, with about 66% of all turnover. Especially the German „blue chips“, the equities of the big companies forming the DAX (German Equities Index), are traded by computer, the XETRA share reaches its highest score of 94%. NEMAX – the German New Market Index is also traded nearly completely in Frankfurt, leaving the „floor“ of Frankfurt Stock Exchange a share of about 30%, after 60% in XETRA. There is nearly no XETRA turnover in bonds or warrants, these are divided between Frankfurt Stock Exchange and the other exchanges. So we can already see the specializations of the small exchanges, they reach high shares in warrants, bonds and foreign equities.

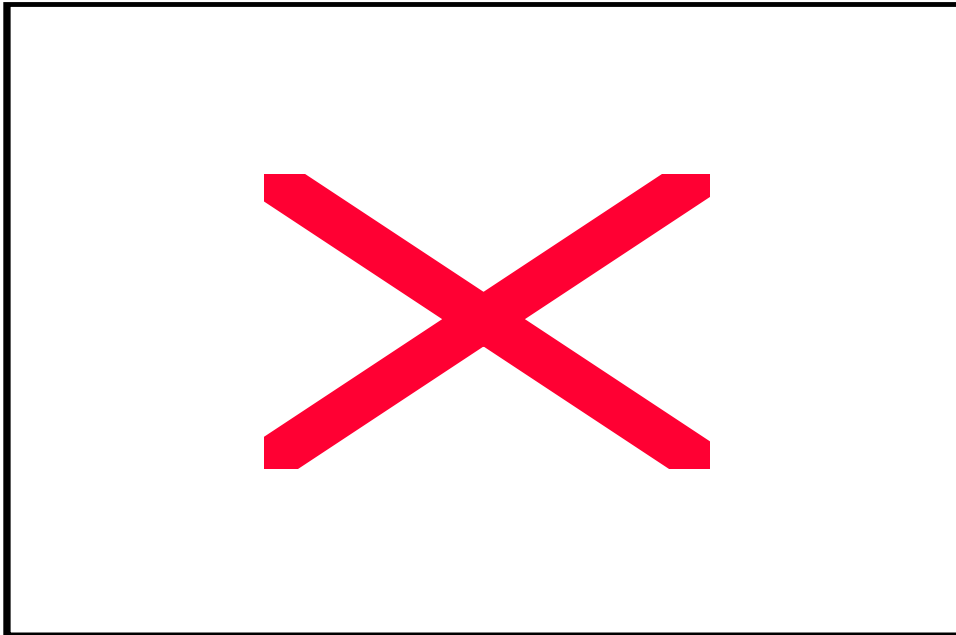
Figure 2:



When we look the distribution of the shares of the different instruments traded at all German exchanges – equities, warrants and bonds – we see, that more than 60% of the total turnover is achieved by domestic equities (Fig. 3). The second largest turnover is derived by trading of bonds (about 25%). Foreign equities with about 8% and warrants with only about 2% are comparably insignificant. Differentiating between XETRA, Frankfurt Stock Exchange and the other exchanges shows remarkable differences. Xetra is nearly totally used for trading domestic equities, with only a small share of foreign papers. Frankfurt Stock Exchange is important for domestic equities and domestic and foreign bonds. The other exchanges are obviously specialized in warrants and bonds, where the shares are distinctly over the average of all exchanges.

The following chapter is going to differentiate between the different small exchanges.

Figure 3: Shares of different instrument types at German Stock Exchanges 2001



5. Institutional Change, Strategies and Conflicts: The Minor Exchanges

After looking at the overall development of financial markets on a global and national scale the following section will focus on the strategies of the competitors on a national scale. Considering this question one must recall that this is a topic which is intensively connected with the discussion about federal structures at all. So all economic considerations are closely intertwined with the continuing struggles between the federal and the Länder level over influence in the political system of Germany. The proponents of a strong federal level usually argue with the necessity to strengthen coherent national structures in the international competition. Decentralized structures bear the risk of inefficiency (f.e. long and intransparent decision processes, no definite competences a.s.f.), especially compared with centralized structures. Their opponents refer to the greater flexibility and adaptability of decentralised forms of organization – and of course to the constitutional structure of Germany, which postulates a subsidiary system. Therefore any decision on the organisation of stock exchanges does not only reflect considerations about economic necessities but also the wish of Länder politicians not to lose prestigious institutions.

Looking for a place for the small exchanges means to consider the different factors which have been discussed as important for exchanges in competition (Section 3). Oehler (2000) presents three possible scenarios for smaller, regional exchanges in relation to a much bigger, dominant exchange.

- Scenario A: *Small exchange as branch office or Self Service Center of a central stock exchange*

This scenario is characterized by a rigid vertical hierarchy between the centre and its branches. Centralized coordination and control will be essential to such a structure, as well as one commonly used, centrally developed information-, routing-, pricing and settlement system. The advantages of such a system are especially on the cost side of the exchange.

- Scenario B: *Small exchange as self-reliant franchise branch of a central stock exchange*

The position of the small exchanges in this scenario is stronger than in scenario A as they can still act as independent units, for example develop their own information system. Partly compatible would be product and price systems and only routing and settlement will be centralized. Typical for franchise systems is the definition of standardized components by the developer of the franchise concept which define the characteristics of the brand, leaving the risk with the counterpart.

- Scenario C: *Small exchanges as self-reliant multi specialists in cooperation with a central exchange*

This scenario views small exchanges as highly specialized independent enterprises, creating their own products and „brands“. In spite of their independent positioning in a highly competitive market they may – in order to optimize compatibility with other systems and to minimize costs – cooperate with each other and the big exchange in development, implementation and maintenance of technical components.

To Oehler (2000) the regional orientation of the specialized small exchange is a logical complement to the global orientation of the dominant exchange. This means backward integration of services for private investors on the one hand, coaching of potential listings on the other hand.

As pointed out before, the small German exchanges are all institutions with a long tradition, supported by the politicians of their respective „land“. Being integrated in a central German exchange, with decisions made in Frankfurt seems to be no attractive option whatsoever. Looking at the strategies of the seven German exchanges beside Frankfurt, we find therefore mostly characteristics of scenario C, with one remarkable difference – the omission of the regional option.

The following analysis of the strategies, institutional and organizational arrangements of these exchanges is based on the examination of annual reports and public relations material of the firms themselves as well as on commentaries in newspapers, weeklies or scientific literature.

Finding differentiated comparable data for all exchanges is rather difficult, as each institution chooses to present the statistic which illuminates their individual strengths bestⁱⁱⁱ. It is therefore rather difficult to rank the exchanges according to size. Following their own descriptions, there are at least two second largest German exchanges (Stuttgart, Duesseldorf) and two third largest places (Berlin, Munich).

Looking at the total turnover of the official statistic, we find Duesseldorf with 283 billion Euro second after the two Frankfurt based exchanges XETRA (1969 billion Euro) and Frankfurt Stock Exchange (1824 billion Euro), followed by Stuttgart with 241 billion Euro. Stuttgart is second after Frankfurt according to the orderbook statistics. The other exchanges are still significantly smaller than Duesseldorf and Stuttgart.

Drawing on the considerations about the competitions between stock exchanges, the overall situation is characterized adequately by the following statement from the annual report of the Duesseldorf exchange: „In today’s competition an exchange can only maintain its position by offering additional trading advantages and services. All exchanges trade the same securities at the same time under the same conditions“ (Börse Düsseldorf 2001, 7).

So all of the small exchanges try to find business niches which are not attractive for the „big“ or „global“ players, especially for Frankfurt. Private investors and small and medium sized enterprises are correspondingly identified as these niches.

The steps taken to make the individual exchange attractive for either of these target groups are rather similar (although the – always imaginative and always english - names of special arrangements differ).

Typical schemes to attract private investors are:

- the extension of trading hours, (especially into the evening, when the well-to-do internet user is online);
- abolition of minimum trading units („best size guarantee“);
- opening of order books to private investors by Internet;
- access to special types of securities;
- information campaigns (for instance workshops or seminars for „stock exchange new comers“; exhibitions; participation in specialized trade fairs) ;
- guaranteed trading conditions:
 - any order (or most of the orders) will be carried out in two minutes;
 - if there is no matching offer/demand in the system, brokers will buy or sell the requested paper;
 - best price is guaranteed (as we have seen, liquidity is one of the preconditions for good prices, therefore the smaller exchanges refer to more liquid exchanges, either the reference exchange is XETRA or the home exchange of the requested paper).

Small and medium sized enterprises (SMEs) are seen as possible listings. As „Going Public“ in Germany is still a rather rare decision by smaller enterprises, the strategy is usually to offer or arrange consultancy services in the preparation of an IPO (Initial Public Offering). As the listing fee depends on the size of the emission, SMEs are not really attractive customers for the big exchanges. The range of services offered is quite wide, from consultancy to coaching as far as to the formation of business

investment companies (together with private capital). The last point mentioned is an example for the changing understanding of exchanges as firms competing in the „market of regulated markets“ (see section 3).

Looking at the steps taken by the small exchanges, Stuttgart exchange is considered to be the most innovative (FAZ of April 10th 1999), although the exchanges in Berlin, Duesseldorf and Munich have also pioneered some changes. But the new concepts were quickly adopted by the other small exchanges and Frankfurter Wertpapierbörse alike. So there is a positive function of the plurality of exchanges in accelerating innovation.

The spatial view of most of the small exchanges is explicitly not a regional one. In a number of annual reports it is proudly announced, that customers from their home region by now are no longer dominant. This attitude of having overcome an archaic phase of development contrasts somehow with the introductory remarks by politicians from the respective „land“. These – usually the secretaries of the economy - tend to announce equally proud the importance of this very exchange for this very „land“ and its economy. And they claim their political support in order to secure the existence of the small exchanges as an important feature of the federalist structure of Germany.

After this overview of strategies and actions of the small German exchanges in general three examples will be introduced in detail. The main characteristics of all six remaining exchanges contains Table 2.

- Berlin Stock Exchange

Berlin Stock Exchange has developed a unique specialization in foreign securities. More than 10.000 securities from more than 60 countries are traded on Berlin exchange. This is distinctly more than on any other German exchange. But as the average order size in Berlin is much smaller than in XETRA or on the Frankfurt floor (Frankfurter Wertpapierbörse), due to the focus on private investors, the share of turnover in foreign securities compared to Frankfurt has declined. For private investors Berlin exchange is the leading German exchange in foreign papers, as an Internet survey in 2000 showed. This specialization will be strengthened by the projected cooperation with the European branch of US-based NASDAQ. This implicit merger – joint trade on 200 securities in order to increase liquidity on Berlin exchange – will be the first cross-border cooperation of a small German exchange.

- Hamburg/Hannover Stock Exchange

Hamburg and Hannover deserve a more intensive look as their merger 1999 has been the first deliberate fusion of exchanges in Germany^{iv}. After experiences in cooperation at the Goods Exchange Hannover and with a joint computer system in May 1999 the supporting organisations of both exchanges decided to merge by forming a new limited company as holding for both stock exchanges and the goods exchange. The decision to merge was taken, after both exchanges had

experienced severe losses of market share especially after the start of XETRA in 1997. Hamburg and Hannover seemed to be badly prepared to face this challenge as they did not have the financial background to fully integrate their trade into XETRA on the one hand and as both of them had not developed a special profile. When news about the planned merger were made public in spring 1999, observers thought that it might have signal function for the overall structure of German exchanges, but until spring 2001 their example had not been copied.

The joint corporation Börsen Aktiengesellschaft (Böag, shares held 50% by each of the former supporting organisations) is the only exchange, which puts a focus on the regional economic base of their business. The marketing strategy of Böag aims at regional enterprises as potential listings, presenting a range of new, mostly high-tech firms in their annual report.

- Stuttgart Stock Exchange

Stuttgart Stock Exchange is considered to be the most innovative of the minor German stock exchanges, making other small exchanges and even Frankfurt to adopt procedures developed in Stuttgart (for example the „Best-Price-Guarantee“ mentioned above) . Starting in 1997, the strategy of Stuttgart Stock Exchange has been oriented towards private investors. As the average turnover generated by private investors is smaller than that of institutional investors, Stuttgart Stock Exchange prefers to use the number of orders, not the total turnover, as significant figure. And comparing the orders, Stuttgart ranks second after Frankfurt. This success with private investors is confirmed by the results of the already mentioned Internet survey on the quality of German stock exchanges. Stuttgart was voted best exchange for private investors.

Stuttgart is also leading exchange for warrants. As Figure 3 has shown this market segment makes up only a very small percentage of all stock exchange turnover in Germany, but it is the only segment, where the share of Frankfurt (floor) is smaller than that of other exchanges. And most of the trade in warrants is in Stuttgart.

Although business in 2001 was – compared to the exceptionally positive year 2000 – marked by heavy losses at all exchanges, Stuttgart is still going to invest 20 Million Euro in the improvement of new technical systems, making a step towards „technical independence“ from the other exchanges.

These three examples show that aiming at similar target groups is not without risk, especially in a market with growing automatization and transparency. Some of the minor exchanges as Berlin and Stuttgart have tried to develop special profiles which makes them attractive for customers all over the country. This is partly successful as the market share of Stuttgart in warrants and the growing number of orders from private investors show. Nevertheless the total market share of the small exchanges has decreased in the last years. The dominance of XETRA and the Frankfurt floor in the big market segments is still growing. Therefore the specialization strategies are also commented critically by insiders. They are convinced that only a joint strategy „against“ Frankfurt – such as the development

Table 3: Characteristics of Minor German Exchanges

	Berlin	Bremen	Düsseldorf	Hamburg/ Hannover	München	Stuttgart
Legal form of organization	Since 2000: limited company (Berliner Börse AG), sole shareholder Verein Berliner Börse e.V.	Since 1998: limited company (Bremer Wertpapierbörse AG), sole shareholder Verein der Mitglieder der Wertpapierbörse in Bremen e.V.	Since 2001: limited company, sole shareholder:	Since 1999: merger of stock exchanges in Hamburg and Hannover to limited company Böag (Börsen Aktiengesellschaft), shareholders: former exchanges, 50% each	Since 2001: limited company (Bayerische Börse AG), sole shareholder Münchner Handelsverein e.V.	Since 2000: limited company (boerse-stuttgart AG), sole shareholder Vereinigung Baden-Württembergische Wertpapierbörse e.V.
Turnover 2000 (Euro)	Total: 134 bill.	1997: 42 bill.	Total: 283 bill.	Total: 105 bill.	Total: 177 bill.	Total: 241 bill.
Strategic orientation	- private investors - leading exchange in foreign securities (more than 10.000 securities from more than 60 countries)	- small and medium sized intermediaries - small and medium sized enterprises - private investors - Business which is not attractive for „the big ones“	- Private investors - Services for enterprises - Use of the internet as medium for information and trade	- private investors - new innovative enterprises (Start Up-Market) as potential listings	- Small and medium sized enterprises as potential listings - Private investors - Institutional investors	- Private investors - Leading exchange in warrants in Germany
Regional orientation	„The question is not, if the location Berlin needs an exchange. The question is, if investors need a Berlin exchange“	- only 20% of business originates in the Bremen/ Lower Saxony region	- regional customers no longer dominant - grateful for the support of „Länder“ politicians	- „Region Nord“ is important for the exchange’s potential customers	„Especially the bavarian economy is asked to support the competitiveness of the exchange“	„Stuttgart has lost it’s character as typical regional exchange during it’s development“
Other	- Cooperation with NASDAQ; - 1 st German Stock Exchange Ranking 2000: Best Exchange for foreign securities			- open to new partners in the future		1 st German Stock Exchange Ranking 2000: Best exchange for private investors

Sources: Annual reports of the Stock Exchanges

of a common trading system – will secure a solid position of „retail exchanges“ (Schmitt 2001). But this strategy of concerted action is no realistic option. On the contrary, when Deutsche Börse AG went public in 2001, the small exchanges which had formed Deutsche Börse Beteiligungsgesellschaft to hold one of the biggest shares, decided to end their cooperation in the Beteiligungsgesellschaft and become separate shareholders each (FAZ, June 21st 2001).

6. Resume: Small German Exchanges: Regional or Retail Exchanges?

Drawing a conclusion from the analysis is easy in one respect: There is only one exchange where the role as a specific regional institution is presented as important feature of the exchange's strategy. The remaining five exchanges are – on the contrary – proud of the fact, that the majority of their customers is located outside the exchange's home region. They are not „regional exchanges“ in the sense that they themselves see their base of action on a subnational level. But they are „regional exchanges“ in another way, as the government of their „land“ of residence considers the existence of an exchange as important. So there is strong political pressure to secure the fragmented structure of German exchanges. This pressure is documented, when decisions over financial regulations, which have passed the first house of parliament (Bundestag) have to be confirmed in the second house (Bundesrat, representation of the federal states). Some decisions had to be changed, because a majority of „länder“ voted against the federal government and the government of Hesse, where Frankfurt is situated.

The strategies of the small exchanges correspond largely, they all try to occupy business niches, which are not interesting for the „global player“ in Frankfurt. Private investors and small and medium sized enterprises are the two main target groups of their policy.

The steps to make business attractive to them are also similar:

- reorganisation into limited company, in order to have more flexible forms of governance;
- better trading conditions for private investors (trading hours, minimum orders);
- guaranteed quality of trade (prices, time) and
- consulting for potential listings.

The characterization as „retail exchanges“ is therefore more adequate than the former „regional exchanges“. The two exchanges which have focused on a special – relatively small - market segment seem to be more successful than others.

The small exchanges nevertheless have to face the fact, that their market share is still declining. Considering the ongoing consolidation process on the supranational scale, the future for the small German exchanges seems to be anything else than secure. From the perspective of countries with a more centralist tradition, the German situation seems rather out-of-date, as the comment of a British

expert shows. He remarked, that in Britain the regional exchanges had been abolished thirty years ago, seeing no reason for more than one stock exchange per country (FASonnZ, May 17th 1998).

The struggles between Frankfurt and the small exchanges will go on, for example concerning trade on German holidays (pro: Frankfurt, against: small exchanges, Antonoff 2001) or trading hours, which are still in discussion.

But the main competition will still be between the small exchanges. Being confronted with declining market share will perhaps increase the willingness to cooperate more than before in order to survive. Given the recent strategies and the massive political support from the „länder“, this survival will be possible for a consolidated number of *specialized retail exchanges*, but not for regional exchanges.

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Notes

ⁱ Although Begg talks about urban competitiveness, there seems to be no problem to adapt this scheme for the description of a broader scale of subnational, namely regional, structures.

ⁱⁱ In the case of derivatives – options or financial futures – the issuer is the exchange itself.

ⁱⁱⁱ DAI Factbook: focuses on share holders and listed firms, does not differentiate between different stock exchanges

Deutsche Börse Factbook: distinguishes between XETRA and Frankfurter Wertpapierbörse, the „rest“ can be easily be found as difference from total

Official turnover statistic: counts twice (sales and purchases), includes interbank transactions

Orderbook statistic: seems to be the most realistic statistic, as it counts only transactions which have passed the orderbook of an exchange, counts only once.

^{iv} „Deliberate fusion“ pays tribute to the fact that during the national-socialist time there had been forced mergers, for example between the exchanges in Frankfurt and Mannheim.