

New York 16:00

Dow Jones

10.821

London 16:30

FTSE 100

5.217

Frankfurt 14:15

DAX

6.160

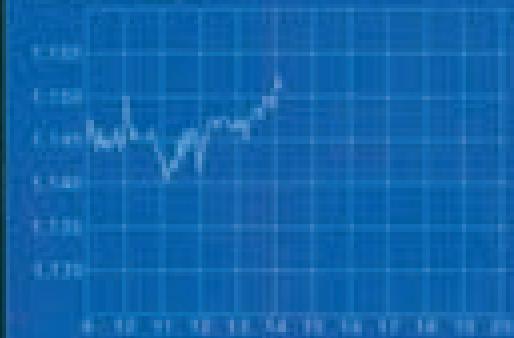
Deutsche Börse Group

# ANNUAL REPORT 2001

DAX 12 months



FTSE 100 12 months



DAX 12 months

FTSE 100 12 months



## Highlights by Quarter

in €m

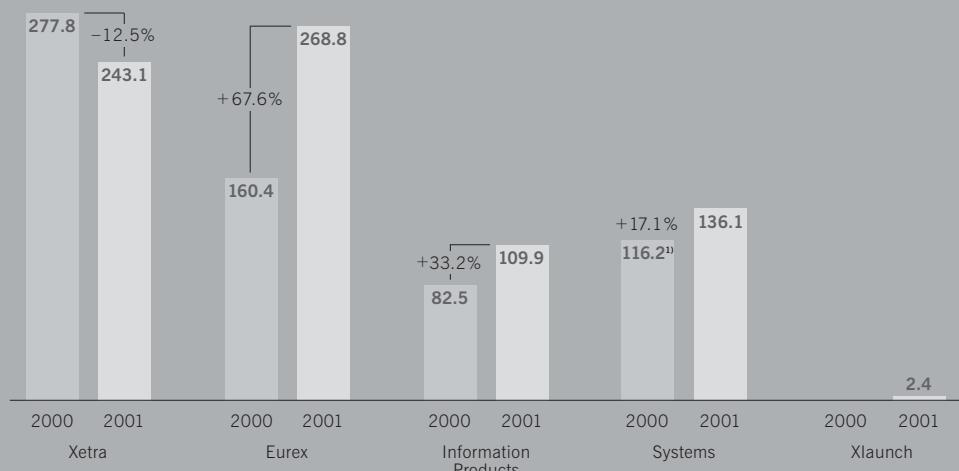
	Q1		Q2		Q3		Q4		FY	
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
Sales revenue <sup>1)</sup>	191.7	164.8	182.9	148.3	185.5	157.3	200.2	178.5	760.3	648.9
Earnings before interest and taxes (EBIT) <sup>2)</sup>	90.2	61.6	70.3	59.2	64.8	60.8	52.8	34.9	278.1	216.5
Profit before tax from ordinary activities	98.8	62.9	83.5	61.4	75.3	60.5	61.6	34.1	319.2	218.9
DVFA/SG earnings	65.2	43.5	52.2	36.0	49.4	35.1	36.9	28.3	203.7	142.9

<sup>1)</sup> 2000 sales revenue restated to eliminate net licence fees collected on behalf of the regional exchanges

<sup>2)</sup> The definition of EBIT has been extended since financial 2001 to include write-downs on long-term investments; EBIT for financial 2000 has been restated accordingly.

## Sales Revenue by Segment

in €m



<sup>1)</sup> Excluding retained licence fees

## Development of Deutsche Börse AG's share price

in €



## Deutsche Börse Group: Financial Highlights

		2001	2000	Change %
<b>Consolidated income statement</b>				
Sales revenue <sup>1)</sup>	€m	760.3	648.9	17.2
Earnings before interest and taxes (EBIT) <sup>2)</sup>	€m	278.1	216.5	28.5
DVFA/SG earnings	€m	203.7	142.9	42.5
Dividend (proposal for FY2001)	€m	37.0	30.8	20.0
<b>Consolidated cash flow statement</b>				
Cash flows from operating activities	€m	248.8	101.5	145.1
Cash flows from investing activities	€m	-160.7	-252.3	-36.3
<b>Consolidated balance sheet</b>				
Equity	€m	1,560.3	419.8	271.7
Total assets	€m	2,135.1	922.7	131.4
<b>Performance indicators</b>				
DVFA/SG earnings per share <sup>3)</sup>	€	2.04	1.95	4.6
Dividend per share <sup>3)</sup>	€	0.36	0.30	20.0
DVFA cash flow per share <sup>3)</sup>	€	2.83	1.85	53.0
Employees (annual average)		1,016	894	13.6
Sales revenue per employee	€ thousands	748	726	3.0
EBIT/Sales revenue	%	36.6	33.4	-
Return on equity <sup>4)</sup>	%	15.9	40.4	-
Equity ratio	%	79.2	49.3	-
<b>Market indicators</b>				
<b>Xetra</b>				
Number of transactions	thousands	49,719	39,009	27.5
Order book turnover	€m	958,407	980,552	-2.3
Participants (at 31 Dec.)		413	431	-4.2
<b>Floor trading</b>				
Number of transactions	thousands	124,342	163,914	-24.1
Order book turnover	€m	235,780	438,712	-46.3
<b>Eurex</b>				
Number of traded contracts	thousands	674,158	454,072	48.5
Participants (at 31 Dec.)		427	429	-0.5
<b>Deutsche Börse's share price<sup>3)</sup></b>				
Opening price (on 5 Feb. 2001)	€	33.50	-	-
High	€	44.93	-	-
Low	€	29.77	-	-
Closing price	€	43.21	-	-

<sup>1)</sup> 2000 sales revenue restated to eliminate net licence fees collected on behalf of the regional exchanges.

<sup>2)</sup> The definition of EBIT has been extended since financial 2001 to include write-downs on long-term investments; EBIT for financial 2000 has been restated accordingly.

<sup>3)</sup> Adjusted for the 10-for-1 stock split implemented on 1 June 2001.

<sup>4)</sup> Based on DVFA/SG earnings.

# OUR MISSION IS TO IMPROVE THE EFFICIENCY OF ~~CAPITAL~~ MARKETS.

Our objective is to become the preeminent exchange organization. We will provide access to the most attractive securities and derivatives markets.

Being the only fully integrated exchange organization worldwide, we offer a full range of trading, clearing, settlement, custody, information and infrastructure services at lowest costs. We will organize new markets and thereby improve their liquidity.

We will provide first-class services targeted at intermediaries and vendors, investors and issuers worldwide.

We initiate and support improvements of the regulatory framework and are open for valuable partnerships.

To achieve these goals we build on our uniquely skilled professionals and the power and reliability of our fully integrated electronic systems. Thus, we create superior shareholder value.



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## DEAR SHAREHOLDERS,

During its first year as a listed company, Deutsche Börse attained – and at times even surpassed – its goals, despite the downturn in the capital markets. In financial 2001, we increased sales revenue by 17 percent to €760 million, while EBIT rose by 28 percent to €278 million.

This success is the result of Deutsche Börse Group's diversified business model, which integrates all aspects of the value-added chain for securities trading. While most of the company's earnings will be invested in further growth, we also intend to distribute a good one sixth of our 2001 profit to our shareholders. At the Annual General Meeting on 15 May 2002, we will propose a dividend of €0.36 per share – a 20 percent increase over the previous year's distribution.

Since becoming listed on 5 February 2001, the Deutsche Börse share has outperformed the benchmark indices MDAX and DJ STOXX Technology. As at year-end 2001, the share had recorded a greater price increase than most of the companies in the DAX 100, climbing by 19 percent to €43.21. The company's market capitalization thus came to around €4.4 billion.



The proceeds from the IPO, which totalled around €1 billion, are being invested in the company's continued growth. Deutsche Börse's merger with entory AG, which took place at the end of 2001, gave rise to one of Germany's largest providers of comprehensive IT solutions for the financial industry. Our proposed acquisition of Clearstream International rounds out our position as the leading full-service provider of securities services.

Via Deutsche Börse's platforms, our customers – in particular banks, securities trading houses, information brokers, investors and issuers – have access to our markets from virtually anywhere in the world. They expect us to provide cost-effective, secure and reliable services, swiftly and at all times. Thanks to our scalable business model, we can meet this expectation while continually lowering costs.

Deutsche Börse has been able to sustain its favorable development thanks to the skills, qualifications and commitment on the part of all staff members, whom I would like to thank for their dedication. With the help of this excellent team, we intend to continue growing – for the benefit of our shareholders – in 2002 and beyond. To this end, we will take advantage of opportunities in our traditional markets, as well as expand our customer base, range of products, and our geographic reach relying on both internal and external growth.

Sincerely yours,

Frankfurt/Main, March 2002

Deutsche Börse AG

A handwritten signature in blue ink, appearing to read "Werner G. Seifert".

Werner G. Seifert  
CEO

**Supervisory Board**  
as at 31 December 2001

**Dr. Rolf-E. Breuer**

**Chairman**

Spokesman for the Executive Board of Deutsche Bank AG  
Frankfurt/Main

**Manfred Zaß**

**Deputy Chairman**

Chairman of the Executive Board of DGZ DekaBank  
Deutsche Kommunalbank  
Frankfurt/Main

**Ralf Arnemann**

Staff member in the Information Products Applications  
Section of Deutsche Börse Systems AG  
Frankfurt/Main

**Herbert Bayer**

Trade Union Secretary of ver.di  
FB 1 Financial Services  
Frankfurt/Main

**Dr. Peter Coym**

Member of the Executive Board of  
Lehman Brothers Bankhaus AG  
Frankfurt/Main

**Leonhard H. Fischer**

Member of the Executive Board of Dresdner Bank AG  
Frankfurt/Main  
and Member of the Executive Board of Allianz AG  
Munich

**Uwe E. Flach**

Member of the Executive Board of DZ BANK AG  
Deutsche Zentral-Genossenschaftsbank  
Frankfurt/Main

**Hans-Peter Gabe**

Staff member in the Personnel Services Section of  
Deutsche Börse AG  
Frankfurt/Main

**Peter Gloystein**

Spokesman for the Executive Board of BHF-Bank AG  
Frankfurt/Main

**Harold Hörauf**

Personally liable partner of  
HSBC Trinkaus & Burkhardt KGaA  
Düsseldorf

Werner G. Seifert



Mathias Hlubek



Rudolf Ferscha



Volker Potthoff

**Executive Board**  
as at 31 December 2001

**Werner G. Seifert**, born 1949

**Chief Executive Officer**

Responsible for the Group Coordination,  
Group Strategy and Risk Management Division  
Frankfurt/Main

**Rudolf Ferscha**, born 1961

Responsible for the Eurex Division  
Frankfurt/Main

**Frank Gerstenschläger**, born 1960

Responsible for the Systems Division  
Darmstadt

**Mathias Hlubek**, born 1963

Responsible for the Finance,  
Corporate Center Division  
Kronberg

**Dr. Norbert Juchem**

Member of the Executive Board of HypoVereinsbank AG  
Munich

**Dr. Claus Löwe**

Partner of Löwe und Bierich ACM Holding  
Bad Homburg

**Friedrich von Metzler**

Personally liable partner of  
Bankhaus B. Metzler seel. Sohn & Co. KGaA  
Frankfurt/Main

**Fritz Nols**

Chairman of the Supervisory Board of  
Fritz Nols Global Equity Services AG  
Frankfurt/Main

**Klaus M. Patig**

Member of the Executive Board of Commerzbank AG  
Frankfurt/Main

**Roland Prantl**

Staff member in the Configuration Management  
Section of Deutsche Börse Systems AG  
Frankfurt/Main

**Sadegh Rismanchi**

Staff member in the Configuration Management  
Section of Deutsche Börse Systems AG  
Frankfurt/Main

**Gerhard B. Roggemann**

Member of the Executive Board of  
Westdeutsche Landesbank Girozentrale  
Düsseldorf/Münster

**Rainer Roubal**

Chairman of the Executive Board of  
ICF Intermediär Center Frankfurt Kursmakler AG  
Frankfurt/Main

**Johannes Witt**

Staff member in the Financial Accounting  
and Controls Section of Deutsche Börse AG  
Frankfurt/Main

**Silke Zilles**

Staff member in the Information Products  
Marketing and Sales Section of Deutsche Börse AG  
Frankfurt/Main

Christoph Lammersdorf



Frank Gerstenschläger

Michael Kuhn

**Michael Kuhn**, born 1954

Responsible for the Systems Division  
Frankfurt/Main

**Volker Potthoff**, born 1954

Responsible for the Xetra Division  
Bad Homburg

**Christoph Lammersdorf**, born 1950

Responsible for the Information Products Division  
Mainz

# 2001

1st quarter

2nd quarter

**Green light for capital increase**  
At an extraordinary general meeting, the shareholders of Deutsche Börse AG approve motions to issue 2.936 million new no-par shares and increase the capital stock by up to €7.506 million.

**First trading day for Deutsche Börse shares**  
As of 5 February, Deutsche Börse AG is an exchange-listed company. The opening price of the stock is set at €362.

**Annual Reception 2001**  
Representatives from the business, political, and financial communities discuss the consolidation of the European capital markets on the evening of Deutsche Börse's IPO. The principal speaker is Caio Koch-Weser, State Secretary at the German Ministry of Finance.

**Block trading in Xetra**  
Deutsche Börse launches Xetra XXL, a new fully computerized exchange platform for block trading.

**EEX derivatives market introduced**  
The EEX derivatives market opens with two electricity futures – one base load future and one peak load future.

**Eurex Repo GmbH founded**  
An independent company is founded to enable computerized OTC trading in repos on the Eurex exchange.

**iBoxx index group for Euroland bonds now complete**  
The iBoxx € Corporate Bond indices are launched, rounding out the index group for the Euroland bond market.

**XTF segment expanded with ten new products**

Ten new index funds are now listed in the XTF market segment, including ETFs on the NEMAX 50, MDAX, SMI, and individual sectors in the Dow Jones STOXX and Dow Jones Euro STOXX indices.

**Annual General Meeting of Deutsche Börse AG**  
At the Annual General Meeting, Deutsche Börse AG shareholders approve a 10-for-1 stock split, a dividend of €3 per share, and a motion to increase the capital stock by another €76.5 million to €102.8 million.

**Cooperation with EuroMTS**  
EuroMTS commissions Deutsche Börse to market its real-time data on federal government bonds issued by the Euroland countries.

**Deutsche Börse share: 10-for-1 split**  
Shareholders of Deutsche Börse AG receive ten new shares for each share held.

**NEWEX enables trading in CEE stocks**  
Securities issued by issuers whose primary business activities are domiciled in Central and Eastern Europe can now be traded on the Frankfurt Stock Exchange in Newex, a segment of the Unofficial Market. The operating company of the new segment is NEWEX Börse AG.



JANUARY

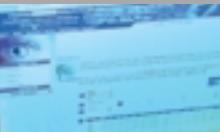
FEBRUARY

MARCH

APRIL

MAY

JUNE



**IPO: The countdown begins**  
The subscription period commences for Deutsche Börse shares. The share has a spread of €285 to €335, and is oversubscribed by a factor of 23. The issue price is finally set at €335 – the maximum price in the book-building spread.

**The order book revealed: Xetra Live**  
For the first time ever, investors can view the Xetra order book using the Xetra Live screen – a service now available to everyone via the Internet. Among other things, the Xetra Live screen contains the ten best real-time buy and sell offers for individual shares.

**New distribution system for market data**  
The new high-performance data stream CEF (Consolidated Exchange Feed) distributes market and price information to data and financial service providers. It replaces TPF (Ticker Plant Frankfurt) and FDD (Financial Data Disseminator).

**3rd quarter****4th quarter**

**Greater transparency in Neuer Markt**  
New disclosure requirements are implemented for Neuer Markt companies. They must now publish structured quarterly reports and announce directors' dealings. The criteria for exclusion from Neuer Markt are made more stringent: in the future, companies will be excluded from the growth market if their stock exchange prices and market capitalization are consistently low, or if they become insolvent.

**Joint venture iBoxx Ltd.**  
Deutsche Börse teams up with seven international banks to found the joint venture "iBoxx Ltd." with the goal of developing a new fixed-income index group.

**E-learning options enhanced**  
Institutional and private investors can take advantage of a broader range of Internet-based seminars offered by Deutsche Börse. The key to greater know-how in all areas of the capital market is [www.trainingscenter.deutsche-boerse.com](http://www.trainingscenter.deutsche-boerse.com).

**Mourning for victims of terrorist attacks on the US**  
Together with the other European exchanges, Deutsche Börse and Eurex commemorate the victims of the tragedy on 11 September.

**6th German Equity Capital Forum**  
For the sixth time, Deutsche Börse and KfW Kreditanstalt für Wiederaufbau organize the German Equity Capital Forum in Leipzig. Companies seeking capital cultivate contacts to venture capital companies and investment bankers.

**Listing Center on the Internet**  
A new Internet service offers Deutsche Börse customers extensive information and services to assist in going – and being – public.

**Consensus reached on merger between EEX and LPX**

The two German energy exchanges, European Energy Exchange AG (EEX) and LPX Leipzig Power Exchange GmbH, announce their merger plans. The new company will be called EEX European Energy Exchange AG, and will be located in Leipzig.

**Commencement of trading in Xetra Dutch Stars**

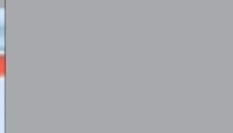
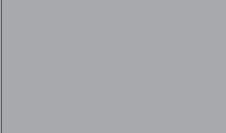
The Dutch shares in the Dow Jones Euro STOXX 50 index are now traded in a separate segment, Xetra Dutch Stars. Just two weeks after their launch, the Xetra electronic trading system has become Germany's leading platform for trading in these shares.

**Record trading on Eurex**

A new all-time high was recorded on the Eurex derivatives exchange on 15 November 2001, when more than 5.7 million contracts changed hands in a single day.

**Go-ahead for entory acquisition**  
The Supervisory Board of Deutsche Börse AG, as well as all entory AG shareholders, agree to Deutsche Börse's planned acquisition of entory AG, located in Karlsbad, Germany.

**Deutsche Börse IPO earns mark of distinction**  
Deutsche Börse's IPO is honored by the magazine Corporate Finance as the "Deal of the Year 2001" in the category "Equity".

**JULY****AUGUST****SEPTEMBER****OCTOBER****NOVEMBER****DECEMBER**

**Eurex launches platform for euro-denominated repos**

In the new segment Eurex Repo, trading commences in euro-denominated repos on German federal government bonds and jumbo Pfandbriefe. Special repos for borrowing specific securities with maturities of between 1 and 365 days can also be traded in Eurex Repo.

**Neuer Markt Report**

Experts on the international capital markets join forces with Deutsche Börse to publish the Neuer Markt Report, which provides an in-depth assessment of the position of Germany's growth market in the international arena.

**Xetra US Stars launched**

US Stars is a new segment for trading US shares, index funds and stock options. Around 200 of the most liquid US shares and two index funds can be traded in Xetra. The Eurex derivatives exchange simultaneously launches trading in ten euro-denominated stock options on US shares.

**Clearstream indicates preference for Deutsche Börse**

The Supervisory Board of Clearstream International recommends that Cedel International, which owns 50 percent of Clearstream, negotiate exclusively with Deutsche Börse regarding the sale of its holdings. Deutsche Börse already owns 50 percent of Clearstream, and will become sole owner if Cedel consents to this arrangement.







**Werner G. Seifert (CEO)**  
Chief Executive Officer Deutsche Börse AG  
Responsible for the Group Coordination,  
Group Strategy and Risk Management Division

# DEUTSCHE BÖRSE – ARE THERE LIMITS TO GROWTH?

During the past several years, Deutsche Börse Group has shown steady, strong growth – a trend that continued in 2001 despite a clear downturn in the capital markets. But has the company reached its growth limit? We are convinced that the answer is no. As long as the markets present growth opportunities, and as long as Deutsche Börse further expands the depth and breadth of its value-added chain, it will continue to prosper.

Since 1998, the staff of Deutsche Börse Group has grown by 30 percent. During the same period, sales revenue more than doubled (increase of 125 percent), and EBIT nearly tripled, rising by 199 percent. As a result, each employee generated 91 percent more sales revenue in 2001 than in 1998, while the already high EBIT margin increased a further nine points to 37 percent. This dynamic growth was anticipated on 5 February 2001, when Deutsche Börse went public with a market capitalization of €3.58 billion; in less than a year, the value of the Group increased by 24.1 percent, with a closing price of €43.21 on 28 December 2001. There are few companies that can boast such strong growth. How long can Deutsche Börse maintain this dynamic expansion? Are there limits to growth, and when – or how – will the company recognize them?

## 1. Fundamentals point to sustained market growth

Most companies active in the capital market considered financial 2001 to be an unusually bad year. The German benchmark indices posted losses of between 8 and 56 percent; the combined trading volume on all German exchanges declined by 17 percent from the previous year. With few exceptions, the other leading capital markets told a similar story. Nonetheless, Deutsche Börse recorded above-average figures for sales revenue and profit in 2001. In general, market participants are not exactly brimming with optimism about financial 2002, yet Deutsche Börse expects to see continued growth. Why are Deutsche Börse and the capital markets developing in such different directions?

### The market of Deutsche Börse Group comprises much more than just the German stock market

In the media, Deutsche Börse is often portrayed in terms of floor trading on the Frankfurt Stock Exchange, yet the Group is larger and more multifaceted than this image would suggest. With its products and services, its market position is far broader and more versatile than any of its competitors'. It offers the full range of financial products, which it integrates into attractive packages such as its US Stars program (see page 51), and enables trading in commodities such as raw materials, industrial goods, or consumer products. It also markets information products so that investors can make sound decisions, and teams up with banks and brokers, as well as other exchanges and settlement organizations in developing and installing complex IT solutions. Its service spectrum even includes the operations of other exchanges and settlement organizations, as well as those of banks and brokers. Today, only 70 percent of Deutsche Börse's total sales revenue is generated by business that is directly dependent on the capital market.



The business portfolio of Deutsche Börse Group is correspondingly diverse. The segments Xetra (cash market) and Eurex (derivatives market) as well as Eurex Clearing and Clearstream work together to orchestrate the swift, secure and efficient straight-through processing of securities transactions, from the placement of an order, to delivery vs. payment, to subsequent safe custody. Deutsche Börse Systems has joined forces with entory AG to create complementary IT solutions for Deutsche Börse as well as for external customers. The Xlaunch segment takes solutions developed for securities trading and settlement and applies them to promising trading and settlement platforms for commodities of all kinds.

Deutsche Börse thus defines its scope of activity much more broadly than one would expect, given that stock exchanges have traditionally focused on the cash market. Its goal is to offer highly competitive end-to-end transaction-related services that accompany securities transactions from a customer's front office, through the processes of trading, clearing and settlement, right up to the customer's back office. On the technology side, Deutsche Börse intends to boost value added through activities that range from the sale of products and licences, to projects and integrated overall solutions, to the operation of the relevant technology for third parties (see chart). On the whole, it will be some time before Deutsche Börse has fully exhausted potential market volume, or developed products and services for all aspects of the relevant market in the technology and transactions business.



### High revenue and profit to be expected in the whole securities industry

Estimates in € billion

	Transactions business				
	Front office	Trading <sup>1)</sup>	Clearing	Settlement	Back office
Technology business	Ownership/joint venture	Revenue: 200 Profit: 30	Revenue: 10.0 Profit: 1.5	Revenue: 3.0 Profit: 0.5	Revenue: 9.0 <sup>2)</sup> Profit: 1.8 <sup>2)</sup>
	Operations				
	Service provision	Revenue: 40 Profit: 8		Revenue: 6.0 <sup>3)</sup> Profit: 0.3 <sup>3)</sup>	Revenue: 27.0 Profit: 5.2
	Projects				
	Licences				

<sup>1)</sup> Including information products

<sup>2)</sup> Safe custody of securities only

<sup>3)</sup> Including ECN technology for fixed-income securities which yield revenue of about €1 billion and profit of about €0.1 billion

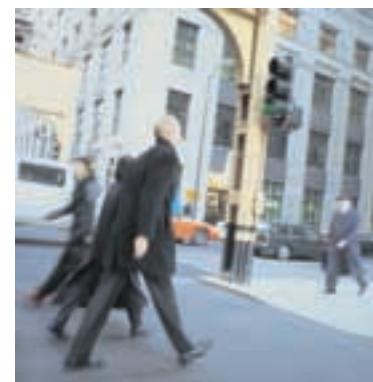
### **The sales revenue of Deutsche Börse Group is less dependent on developments in the capital market than outside observers have predicted**

Financial 2001 had a further surprise in store for outside observers: the development of sales revenue in the Xetra Division corresponded only slightly to the trend in the capital market. At the same time, the division's revenue was highly correlated with the number of transactions executed in the Xetra system. The division was able to post sales revenue that was nearly on a par with the 2000 figure, with a loss of only 12.5 percent, even as the German benchmark indices showed a marked decline of up to 56 percent.

This achievement hinged on two pivotal factors: on the one hand, a flexible pricing system which is oriented more to the number of transactions and less to order size, and which allows for the weighting of these two variables to be shifted as needed; on the other, structural changes geared toward smaller transaction volumes, but a larger number of transactions.

A further reason for Deutsche Börse's independence from the ups and downs of the capital market is the stabilizing effect of diversification within the corporate group, in which the Xetra and Eurex divisions counterbalance one another. As was the case in 2001, when investor uncertainty regarding share prices boosted demand for derivative products on shares and share indices, and the number of transactions on Eurex showed a corresponding increase. There was also an increase in business activities that do not relate to the capital market. Thus, Deutsche Börse has reason to assert that it has largely been able to uncouple itself from the development of the capital markets – a further explanation as to why there are no built-in limits to the Group's growth.

At the same time, the Group's customer base has become increasingly international. Deutsche Börse has established a close-knit global network of customer relations, extending its geographic reach farther than any of its competitors. As at 31 December 2001, 670 customers in 18 countries were connected to its systems. Its 15 largest customers include nine globally active intermediaries in the US, the UK, France and the Netherlands, as well as the information brokers Reuters and Bloomberg. In addition to its headquarters in Germany, Deutsche Börse maintains a significant presence in Switzerland, Luxembourg and the US; customers are also supported by its representative offices in London and Paris. Our trading platforms are used to operate exchanges in Dublin, Vienna, Helsinki, Zurich and CBOT in Chicago; overall, we oversee the operations of 19 exchanges from our central headquarters in Frankfurt. At the same time, Eurex has continued to bolster its position as the world's largest derivatives exchange – and as a result, the total sales revenue of Deutsche Börse is greater than that of its two main competitors put together.



**The fundamental growth of the relevant market is impressive, and harbors numerous prospects for further growth**

In both its transaction-related and technology-related activities, Deutsche Börse can pursue such a wide variety of internal and external growth options that the relevant market does not present any limits to growth. Deutsche Börse's home market in business with transaction-related services – the largest in Europe – has so much unrealized potential that it would post double-digit growth even if left to its own devices.

This growth is attributable to the simultaneous expansion of supply and demand. The boost in demand stems mainly from an increase in the capital cover of pension schemes; supply is growing because companies are increasingly turning away from bank loans and financing their growth via the capital market.

Demand is also climbing because investor activity is becoming increasingly international. While investors are currently committing the lion's share of their assets to domestic securities, in tomorrow's world they will be able to achieve a much higher return at the same level of risk through the efficient geographic diversification of their investments. In this respect, Deutsche Börse has created a two-way street, offering foreign securities to its German customers and German securities to foreign investors. Demand on the part of foreign investors is bound to increase. Only the two or three largest exchanges in Europe will benefit from this trend.



Moreover, demand will rise as Deutsche Börse launches new products. The Group plans to make existing products more investor-friendly, as well as develop new products and services so that investors can hedge against a greater number of risks. As a result, its relevant market will expand considerably. Lastly, Deutsche Börse will use its e-market factory, XLaunch, to apply its know-how in trading and settlement to the real economy. Its goal is to enhance the efficiency of these markets, too, by enabling market participants to hedge against the relevant risks and increase their efficiency. At the same time, all of these activities are generating additional growth in business with information products.

Deutsche Börse is also aggressively expanding its technology business with external partners. Its target groups include not only other exchange and settlement organizations, but also the front and back offices of customers in the securities business. The spectrum of available products and services ranges from the sale of technology, to the integration of custom-tailored solutions, to the insourcing of entire back offices. In acquiring entory AG, which offers innovative IT solutions for financial service providers, Deutsche Börse is now in a position to tap the potential of this market more fully.

The first conclusion to be drawn, therefore, is that the size and growth of the relevant market will not limit Deutsche Börse's continued growth.

## 2. The depths of the value-added chain can be expanded

Deutsche Börse is involved in two kinds of competition – “vertical” competition with intermediaries along the value-added chain, and “horizontal” competition with other exchanges and settlement organizations. Reciprocal disintermediation is intensifying, which enables individual exchanges and settlement organizations that offer superior services to deepen the scope of their value-added chain. Contrary to certain myths that are currently in circulation, the leading European exchanges are well positioned in this respect, as is illustrated by the following comparison between American and European exchanges and settlement organizations:

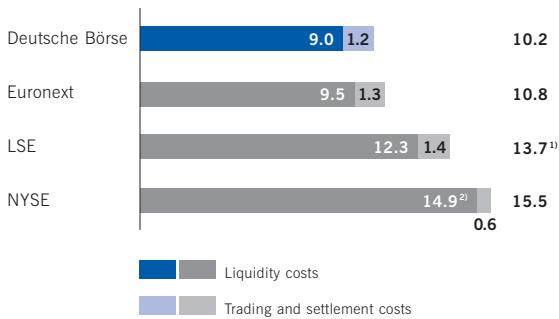
### **Myth 1: Europe's exchanges and settlement organizations are inefficient in comparison with those in the US, and are thus expensive.**

What else would one expect? The turnover in the largest European capital market is equivalent to just 13 percent of the turnover in the American capital market. In most European countries, the ratio between market capitalization and GNP is considerably lower than in the US. And why? Despite a single currency, supply and demand are divided among 15 different legal and regulatory frameworks that are codified in 11 languages, with established market practices that have evolved over time. In addition, many issuers, investors and intermediaries still have a local focus.

Nonetheless, transaction costs in most European markets are lower than in the United States (see chart). The portion of transaction costs that covers the activities of the stock exchange comes to 10.2 basis points of the order value at Deutsche Börse, 10.8 points at Euronext, and 13.7 points on the London Stock Exchange. By contrast, the same transaction costs a full 15.5 points on the New York Stock Exchange.

### **Transaction costs in equity trading attributable to stock exchanges**

in basis points



<sup>1)</sup> Plus additional costs of 23.6 basis points for general stamp duty

<sup>2)</sup> Market organization causes relatively higher liquidity costs.

In London, it is only the anachronistic stamp duty that forces overall costs up so high. If the New York Stock Exchange were as efficient as Deutsche Börse or Euronext, its transaction costs would be only 5 basis points. So why are costs on American exchanges still so high? Several years ago, the European exchanges introduced electronic trading platforms in which prices are determined in an open order book without intermediaries; moreover, they gave participants access to these platforms independent of location. Competition is the key to the high level of efficiency. In the US, the owners of the New York Stock Exchange – the intermediaries – obstruct the introduction of investor-friendly trading mechanisms. And shortly after the imprecise method of price determination using fractions was replaced with decimal prices, brokers began to charge their customers a commission – how had they covered their costs before?

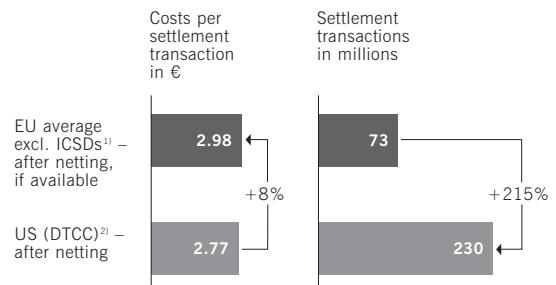
**Myth 2: Clearinghouses and settlement organizations are expensive national monopolies, and should be organized more efficiently as “user-driven cooperatives” in the interest of their customers.**

The latest studies from Brussels illustrate that the European clearing and settlement organizations charge an average of just 8 percent more for a settlement transaction than the American Depository Trust and Clearing Corporation (see chart). It is remarkable that this difference is so small, as the settlement volume in the US is three times that in Europe. This shows that the law of economies of scale is almost completely offset by smarter technology and the integration of clearing activities into a swift and reliable straight-through process. And who first propagated this myth? A small group of market participants that hold only a minor ownership interest in the

existing infrastructure providers, and who in the past participated only to a small degree in creating an efficient infrastructure. As a result, they carry little weight when it comes to corporate governance, and the extent to which they can influence the content of market regulations is limited.

Consequently, they are attempting to exert greater control by propagating a corporate governance model that is derived not from ownership rights, but instead from user rights that are determined on the basis of the volume of business generated.

**Settlement costs in Europe and the US**



### **Myth 3: It is useful to separate settlement infrastructures from those of the exchanges.**

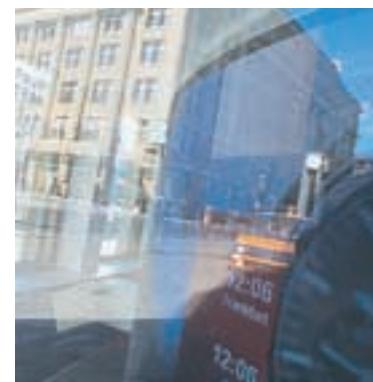
Proponents of this myth claim that vertically integrated providers of capital market infrastructures restrict access to their platforms, which are subsidized with proceeds from settlement activities. If settlement and exchange infrastructures were in fact kept separate, it would clearly limit competition between the various types of organizations.

Why is this critique of vertical integration propagated almost exclusively by a certain group of participants in a particular region of Europe? Because in that region, the capital market infrastructures are not harmonized. This significant competitive disadvantage is in turn reflected in higher transaction costs.

And why is it that Euroclear presented an unacceptable offer for Clearstream when the direct and indirect synergies are supposedly so far-reaching? Why have the owners of Euroclear provided no capital to make their offer more attractive and create a horizontally integrated clearing and settlement landscape? Institutional investors who are interested only in the financial success of exchanges and settlement organizations – and who do not regard this investment opportunity as a means of influencing the market organization in their favor – are able to see things more clearly.

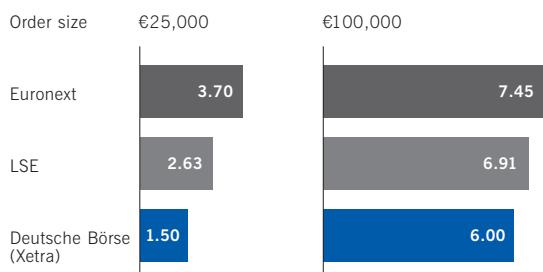
Why has the value of Deutsche Börse increased so much more than that of other exchange organizations? Why is its market value as high as that of all of its competitors taken together? In the capital market, providers of capital market infrastructures are valued using the same criteria that apply to any other listed company: a promising outlook for the future and the ability to expand their share of the market by offering their customers attractive products and services. This range of products and services offered not only includes open access to every single link of the value-added chain, but also prohibits any sort of cross- or vertical subsidization.

There must be something to the concept of vertical integration, otherwise Deutsche Börse and its partner Clearstream would not be able to offer the lowest all-inclusive price for trading, clearing and settlement in all customer segments (see chart). Those who switch to one of its competitors have to pay more.



#### **All-inclusive price (trading, clearing and settlement)**

Price per transaction in €



**Myth 4: A lack of horizontal integration between exchanges and settlement organizations is what drives up cross-border transaction costs.**

This statement is often supported with the claim that settlement costs in Europe are ten times those in the US. The facts tell a different story (see chart below): in Europe, it costs between 3.6 and 10.6 basis points to trade a domestic security in the amount of €200,000, including liquidity costs (but excluding the costs of intermediation). If a foreign share is traded in the same system, the lack of liquidity pushes up the transaction costs to around 75 basis points. If a foreign security is traded on its home exchange, the transaction will cost between 4.1 and 13.1 basis points. This difference is the result of additional settlement costs of between 0.5 and 2.5 basis points. The ratio is thus not 1:10, but instead 1:1.2.

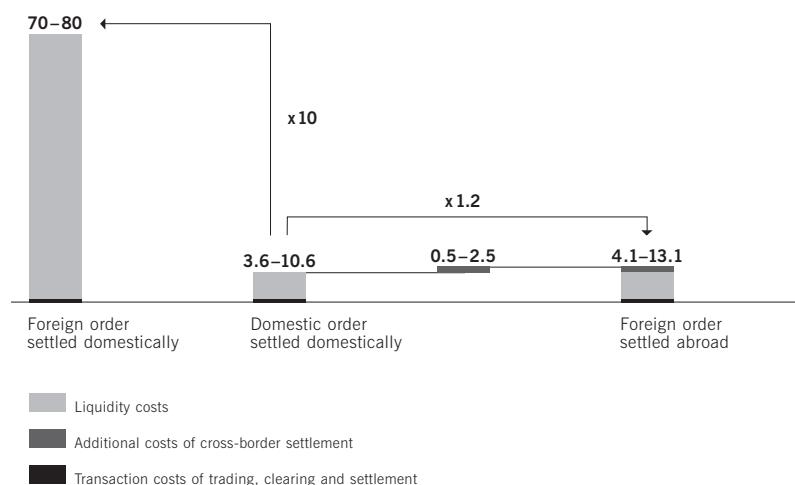
Therefore, in the case of larger orders, the costs of cross-border settlement are not very high at all. This picture changes if one considers a smaller order of €5,000. Despite higher liquidity costs, it is much less expensive to trade the foreign security on the domestic platform than on its home exchange, because the additional fees for cross-border transactions have a relatively high weighting when it comes to smaller orders.

The annual loss of efficiency purportedly has a price tag of around €5 billion (see chart on opposite page). In the case of both large and small transactions, only a fraction of the additional costs are incurred through the activities of exchanges and settlement organizations. Intermediaries, exchanges and settlement organizations will compensate for the share attributable to them, which amounts to approximately one fifth of the total, by enhancing their operations. The true systemic cost disadvantage is the result of differences in the European regulatory framework: differences in the various fiscal systems, as well as in social and civil law, require “translations” and a “translator”, which drives up the costs of cross-border securities transactions.



Total transaction costs of a €200,000 order

in basis points



## Despite all myths, Deutsche Börse will be able to deepen its value-added chain both upstream and downstream thanks to its vertical competitive edge.

In the face of myths such as these, it is easy to gripe about limits to growth. But securities trading in Europe is much more efficient than its reputation would suggest. It is easy to blame the providers of capital market infrastructures for the slow development of the European capital market. Although this is a popular strategy, it is not an accurate one, as a simple comparison will illustrate.

The market value of the capital market activities of all European intermediaries is around 65 times as high as the market value of all European exchanges, clearinghouses and settlement organizations taken together. However, the exchanges and settlement organizations account for a share of overall value-added that is many times larger than this ratio would suggest. This means that the European capital market infrastructure is already operating with quite a bit of leverage. What is more, its leverage will continue to increase as competition for capital heightens dramatically between exchange organizations – capital that will be used to render processes more efficient,

launch innovative products and services, and achieve greater economies of scale through external growth.

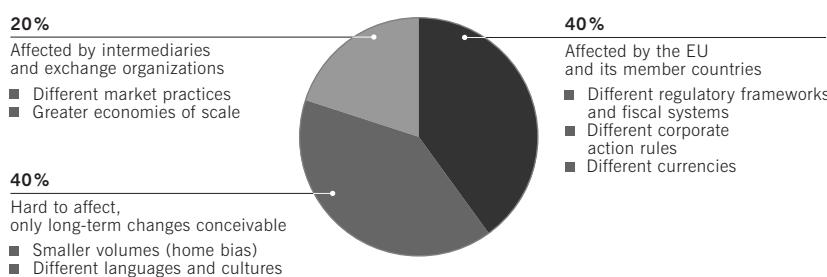
Thus, the creation of a suitable competitive environment for exchange and settlement organizations would be a worthwhile issue for Brussels and the EU member countries. This liberal competitive framework would enable “creative destruction” in the sense of economic theorist Joseph Schumpeter and offer incentives for those companies. If the rate of innovation and investment is to reach a level that is useful for the economy as a whole, the price must be right – companies in the exchange and settlement business must be able to compete for a large to very large share of the market without restrictions on the depth of value-added or organizational freedom.

At the same time, there is no reason to fear an abuse of market power. As long as new, more efficient competitors are able to enter the market and capture a large share of trading volume for themselves, there is nothing wrong with a situation in which a few providers have temporarily cornered a large portion of the market. Prudent regulations do not focus on the share of the market held by a particular player, but instead are interested primarily in whether markets are open to new competitors.



## Additional costs of cross-border securities transactions per year

Total volume €5 billion p.a.





Above all, competition policy should observe fair rules for takeovers and facilitate market entry. The large number of electronic trading systems that have attempted to compete with established exchanges in recent years shows that in this business, the market is wide open for new competitors.

Against this backdrop, Deutsche Börse will create new business opportunities that it can use to lengthen its value-added chain. On the upstream side, it will offer front-office software products and services, starting with its German clientele. These products will offer not only superior functionality, but also maximum compatibility with customers' existing in-house trading systems. Putting Deutsche Börse Group's valuable customer relations to greater use is a worthwhile goal for Deutsche Börse Systems and its sister company, entory AG.

The downstream side harbors even more business opportunities. Deutsche Börse can tap into a large pool of customers; the acquisition of Clearstream alone will channel around 2000 additional customers to the corporate group. The Group can do more than just offer these customers software solutions; many of them are willing to turn over the complete operation of their securities back office to Deutsche Börse. This will enable the Group to open up a further business area with a high degree of scalability.

However, Deutsche Börse also needs to recognize that intermediaries can encroach on aspects of its own value-added, for example by executing part of their order stream on their own platforms – especially when it comes to orders placed by private investors. Starting in 2002, Deutsche Börse will offer a new trading service for the orders of private investors on the Xetra platform, thereby meeting the needs of its customers while enhancing – rather than jeopardizing – the economies of scale on its own platforms. Its new service, Xetra Best Execution – or Xetra BEST for short – enables intermediaries to offer their customers best execution. Xetra BEST transactions are supervised by a neutral system, and the intermediary does not have to bear costs for development and operation of its own systems. In addition, they can rely on tried-and-tested standardized interfaces and the Europe-wide Xetra participant network, as Xetra BEST is an integral component of the Xetra exchange trading system.

Here, a second conclusion can be drawn: disintermediation along the vertical value-added chain offers excellent opportunities which, if utilized effectively, could push back the limits to growth. However, this could also cause a shift in the weighting of Deutsche Börse Group's business portfolio. The establishment of new business areas could in some cases mean giving up or selling off existing operations.

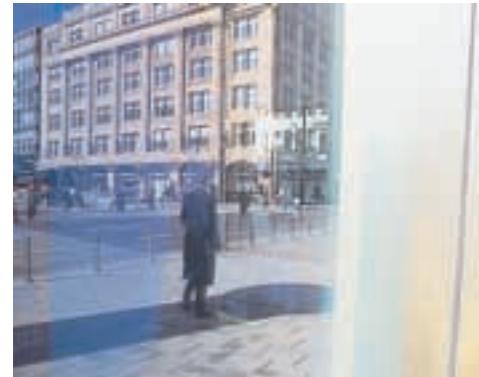
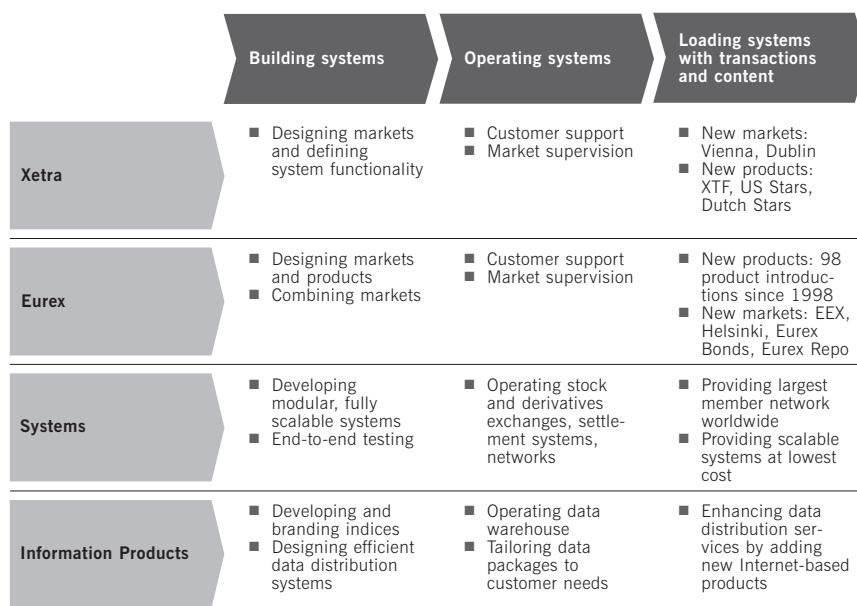
### 3. Horizontal competitive edge aims at capturing a larger market share

In recent years, Deutsche Börse Group has developed a highly powerful business model that enables it to outperform its competitors – its products and services offer greater richness and quality, and give customers more value for their money. It concentrates on three core functions (see chart): “building” (software development), “operating” an integrated system landscape, and “loading” its systems with transaction volumes (product development, marketing and sales).

Deutsche Börse Group is a one-stop source for all the infrastructure elements that are essential for successful securities trading. Its functional business model seamlessly integrates the three value-added phases of trading, clearing and settlement. This enables it to control the value-added chain and offer straight-through processing, in which each customer can decide whether to utilize the entire integrated spectrum of transaction-related services, or select individual elements. At the same time, this structure is open at every level not only to Deutsche Börse customers, but to other trading platforms and clearing-houses as well.

#### Simple business model:

Business units perfectly integrate full range of services





Deutsche Börse can achieve greater economies of scale than any other exchange organization. All functions are based on an integrated technology with virtually unlimited scalability. Owing to the strong growth in volume during recent years, and above all during financial 2001, Deutsche Börse has been able to reduce unit costs by two thirds within three years. Because Deutsche Börse is also the price leader among its competitors, these economies of scale benefit its shareholders, too.

Deutsche Börse has established the world's largest participant network. 670 banks and broker/dealers trade directly from 18 countries in Europe and the Americas. All these participants now have direct access to all markets, products and services of Deutsche Börse Group and its partners. As the lowest-cost producer, Deutsche Börse offers its services at all-inclusive prices that include all variable costs for trading, clearing and settlement. The fixed costs for accessing the market and utilizing Deutsche Börse's products and services have been scaled to meet customers' needs with respect to trading volume and number of transactions. With this technology and customer network, exchanges from other countries can outsource the operation of their entire markets at the lowest unit prices.

With its business model and its customer base, Deutsche Börse intends to grow from the inside out to capture a greater share of the market. To this end, the Group is expanding its range of transaction-side products and services – as it demonstrated during financial 2001 with great success on all fronts:

- Xetra. By introducing US Stars and Dutch Stars, Xetra has established two new international trading segments. For the first time ever, private investors can access the Xetra order book via the Xetra Live screen. Moreover, new standards for Neuer Markt, introduced in early 2002, have enhanced transparency in this segment. Following the rapid success of the XTF segment, which was launched in 2000, additional exchange-traded funds were listed in XTF.
- Eurex. New developments in 2001 included options and futures on the indices of high-growth sectors (telecommunications, banking, health care) and the Eurex repo platform. Automatic OTC trading in repos on the Eurex system was made possible through the founding of Eurex Repo GmbH. Growth potential in this area is far from exhausted, as is demonstrated by the exceptional success of these relatively new products on shares and share indices.
- Information Products. Deutsche Börse launched its new system for electronic data storage and data processing CEF (Consolidated Exchange Feed). Since April 2001, the iBoxx index family has supplied the market with current and reliable price information on corporate and government bonds issued in the Euroland countries.
- Clearstream. Since 2000, the enhanced functionalities of the Creation settlement platform have created additional benefits for Clearstream customers. New services for markets outside of Germany round out Clearstream's international range of services.

In broadening the range of products and services, marketing strength is becoming an increasingly important success factor. This is why Deutsche Börse has determined to expand its marketing and sales staff by a further 23 percent in 2002.

At the same time, Deutsche Börse will take advantage of attractive opportunities for external growth. Shortly before year-end 2001, it acquired entory AG with the intention of boosting its business in technology-related services. Just a few weeks into 2002, it reached an agreement with the board of Cedel International on an offer for the outstanding 50 percent share in Clearstream, thereby flexing the financial strength that makes it unique in the industry. At the end of 2000, Moody's Investors Service renewed the Group's Aa1 rating. This, in combination with the IPO, has given Deutsche Börse easy access to the debt and equity capital market. It has the financial clout and flexibility to take advantage of any and all investment opportunities in its sector at any time.

The Group will continue to expand its portfolio with additional purchases. Deutsche Börse will implement takeovers or mergers that create value for its shareholders, as it has done in the past. In addition, it will convince outside exchanges and settlement organizations that it is to their advantage to outsource their business to the platforms of Deutsche Börse.

At this juncture, the third and final conclusion can be drawn: Deutsche Börse still has plenty of scope for growth, also with regard to capturing a greater share of the market.

For a long time ahead, there are no limits to growth in sight for Deutsche Börse. Whether the company can continue on its previous growth path depends solely on its own performance. The market offers more than enough scope and growth opportunities. To succeed, the company must always be able to react swiftly to changes in the factors that keep it a step ahead of the competition, and to open up bottlenecks wherever they occur. This is the benchmark the market will use to measure our performance, and this shall be our benchmark, too.









**Mathias Hlubek**  
Responsible for the Finance, Corporate Center Division

## THE DEUTSCHE BÖRSE SHARE – AN EQUITY SUCCESS STORY

Going public has fundamentally altered the ownership structure of Deutsche Börse. In the past, Deutsche Börse's customers were also its shareholders, whereas now the company has a broader and more international ownership base. Moreover, the Deutsche Börse IPO was one of the most successful in 2001. The share price ended out the year with strong gains, and shareholder value has increased by about one fifth since the shares were floated.

## Business model of a stock exchange redefined

Few industries can look back on a tradition as long as that of stock exchanges. Over the centuries, they did little to modify their business model, and their shareholder structure did not change at all. As a rule, shareholders were intermediaries from the financial community, which meant that owners and customers were one and the same. In the past, when securities were traded on the exchange floor and the activities of intermediaries and exchanges were clearly separated, there was no reason to question the dual customer-owner role. In recent years, however, a dramatic shift in industry parameters has taken place: most trading is now done electronically, trading and settlement have been integrated, and competition between exchanges for the capital of international investors has heightened considerably.



Deutsche Börse has responded to these developments by redefining the business model of a stock exchange as that of a technology and service provider. The company has set itself clear goals: continued expansion and dynamic growth. In striving to attain these goals, Deutsche Börse is not only building on macroeconomic trends, such as the increasing importance of the international capital markets in corporate financing, but is also working toward opening up new business segments.

## The IPO: The right step at the right time

The IPO – and the accompanying measures aimed at further orienting all company activities toward enhanced shareholder value – was a logical next step for Deutsche Börse, primarily for two reasons:

- As the financial sector consolidates and new securities trading platforms are developed, the traditional distinction between the functions of exchange organizations and market participants is breaking down. In the past, the interests of Deutsche Börse's owners and customers were identical, but this is no longer the case.
- As the financial markets and their participants become increasingly international, future business policy decisions taken by Deutsche Börse will have different implications for participants than for shareholders. A conflict of interest can arise between management and shareholders.

Going public has given the company a new strategic outlook. The growth potential created by Deutsche Börse's business model can now be utilized far more effectively.

Timing was a crucial factor when it came to floating the shares. And no time could have been more appropriate than early 2001, when conditions were ideal for entering a new phase of competition with other European exchange organizations by going public. The IPO has given Deutsche Börse an important competitive advantage in vying for market share and growth capital.

Deutsche Börse's shares offered at the IPO, mostly resulting from a 40 percent increase in the capital stock, were in high demand, which demonstrated that the company had made the right choice. In particular, institutional investment firms, as well as investors in the UK and the US, were very keen to acquire Deutsche Börse shares. In a difficult capital market environment, the share was oversubscribed by a factor of 23, and allotted at a price of €335, the maximum value of the book-building spread. On 5 February, the share was floated in Official Trading on the Frankfurt Stock Exchange at a price of €362.

The magazine Corporate Finance praised the successful IPO in their 12/2001 issue as the world's "Equity Deal of the Year 2001".

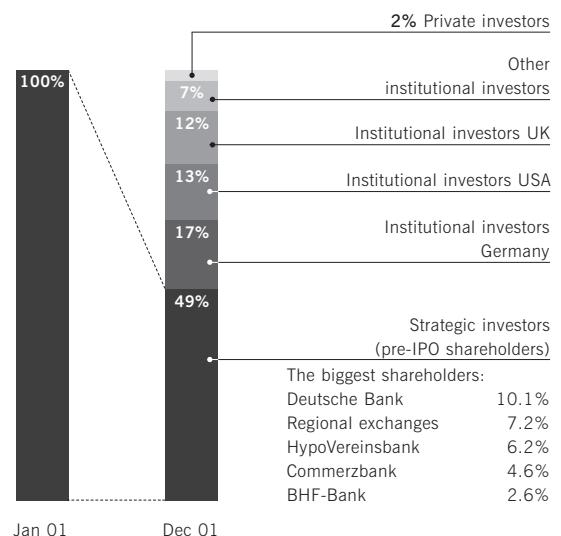
## The share as an acquisition currency

The IPO and the related capital increase have not only provided Deutsche Börse with more favorable financing opportunities for foreseeable large-scale projects. Rather, the share is also an acquisition currency which, in the hands of Deutsche Börse, represents a challenge to competitors to open up their own shareholder structures and make shareholder value their top priority, too. In fact, the IPO has had an impact that goes far beyond the scope of Deutsche Börse AG. It has prompted a repositioning on the part of a number of stock exchanges, initially in Europe and now throughout the world, which in some cases has also culminated in an IPO.



The shareholder structure of Deutsche Börse has become significantly more international as a result of going public, expanding from a group of 328 primarily German customer-shareholders to include 36,000 investors from 86 countries by the end of 2001. At that time around 49 percent of the shares were in the hands of investors who are focusing on sustained value growth. Institutional investors from Germany held 17 percent, pension and investment funds in the US around 13 percent; fund companies in the UK account for around 12 percent of the shares. The three largest shareholders, Deutsche Bank, Deutsche Börsenbeteiligungsgesellschaft (representing the regional German exchanges) and Allianz, currently hold around 26 percent of the voting rights.

Shareholder structure after the IPO:  
Institutional investors more  
strongly represented



The commitment that shareholders feel toward Deutsche Börse – “their” company – became apparent at the Annual General Meeting on 3 May 2001, which was attended by nearly 1,000 shareholders. At the ballots, around 65 percent of the voting rights were represented – an unusually high proportion.

## Favorable development of the share price

Deutsche Börse was able to demonstrate its growth potential right in its first year as an exchange-listed company. The after-tax earnings per share (EPS) rose by 4.6 percent to €2.04.

### Earnings per share

	2001	2000
<b>Number of Deutsche Börse shares as at 31 December</b>	102,760,000	73,400,000 <sup>1)</sup>
<b>Average number of shares</b>	99,763,014	73,400,000 <sup>1)</sup>
<b>DVFA/SG earnings per share (€)</b>	2.04	1.95 <sup>1)</sup>
<b>Dividends paid to shareholders (€m)</b>	37.0 <sup>2)</sup>	30.8
<b>Dividend per share (€)</b>	0.36 <sup>2)</sup>	0.30

<sup>1)</sup> Number of shares, earnings per share, and dividends in 2000 have been adjusted for the 10-for-1 stock split on 1 June 2001.

<sup>2)</sup> Proposal for 2001

The development of the share price indicates that investors have confidence in Deutsche Börse's strategy and its focus on shareholder value. The price of the share increased by 19.4 percent by year's end; the return to shareholders, which also takes dividends into account, came to 20.2 percent. In fact, the Deutsche Börse share fared significantly better than the market as a whole: the MDAX dropped 10 percent during the same period, and the Dow Jones STOXX 600 Technology (EUR) index fell by 37 percent.

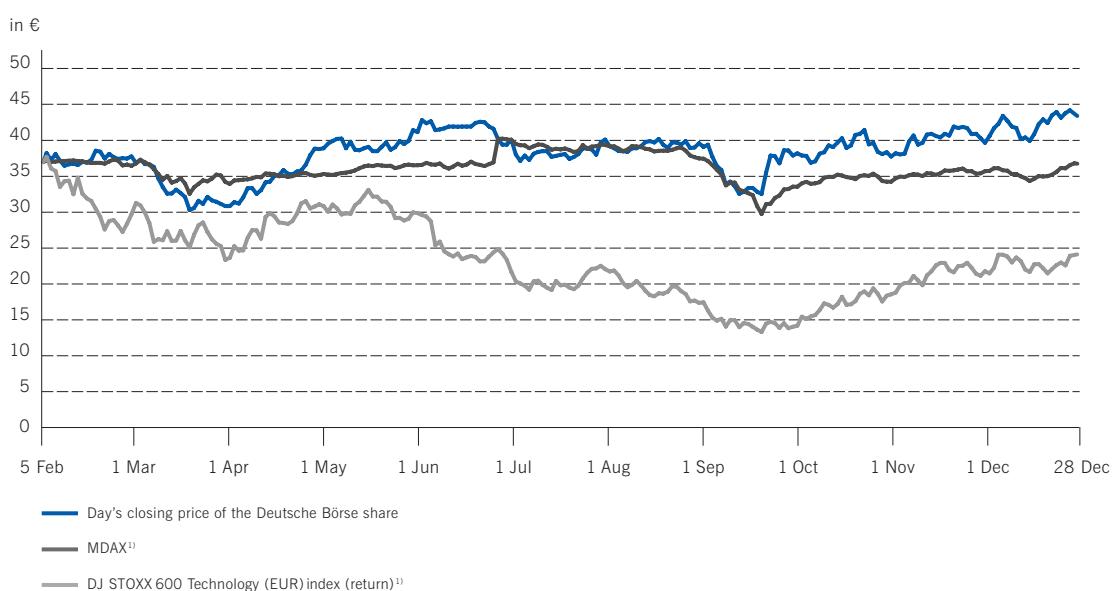


As at 18 June, Deutsche Börse was included in the MDAX. Owing to its considerable free float, its continued growth and the concomitant increase in the share price, Deutsche Börse is now one of Germany's 40 largest companies in terms of exchange volume and market capitalization. On 31 December 2001, Deutsche Börse had a market capitalization of €4.4 million. To further enhance the attractiveness of the share and its liquidity during exchange trading, a 10-for-1 stock split was implemented on 1 June 2000. The year-end closing price of the Deutsche Börse share came to €43.21.

## Investor relations

A variety of investor services helped to provide a continuous and comprehensive stream of information on the company and the Deutsche Börse share in 2001. One area of the Deutsche Börse website ([www.deutsche-boerse.com/ir](http://www.deutsche-boerse.com/ir)) was developed specially for investors. All annual and interim reports, company presentations and video recordings thereof, as well as monthly statistics on business developments can also be downloaded (see page 174).

### The Deutsche Börse share performed better than its benchmark indices



<sup>11</sup> Indexed to closing price on 5 February 2001

In addition, Deutsche Börse has put effort into cultivating direct contacts with institutional investors around the world. Deutsche Börse representatives answered questions about the company in telephone conferences, at presentations for analysts, and in the course of more than 250 one-on-one meetings. Around three quarters of these events involved members of Deutsche Börse's Executive Board.

In addition, the company reached out to interested investors during conferences at all major stock exchanges. The growing interest in the share is also reflected in analysts' reports. In 2001, analysts from 20 investment banks published detailed reports on Deutsche Börse; these analysts also report regularly on the development of the company.

## Favorable prospects

The business model of Deutsche Börse AG has proven to be highly successful during the company's first year on the stock exchange – both for Deutsche Börse and for its shareholders. Thanks to Deutsche Börse's strategic positioning as a technology service provider, in combination with its highly adaptable and scalable business model, we are confident that the company will continue to meet high growth expectations in 2002.

The Executive Board forecasts further revenue growth for 2002 resulting in overproportionate growth in EBITDA (earnings before interest, taxes, depreciation and amortization). In the medium term, the Executive Board is seeking annual sales revenue growth of 10 percent while maintaining the Group's relative earnings power.

### **The following investment companies regularly reported on Deutsche Börse in 2001:**

- **ABN AMRO**
- **Bankgesellschaft Berlin**
- **BHF-Bank**
- **BNP Paribas**
- **CAI Cheuvreux**
- **Commerzbank**
- **Deutsche Bank**
- **DZ Bank**
- **Dresdner Bank**
- **Goldman Sachs**
- **HypoVereinsbank**
- **JP Morgan**
- **Julius Bär**
- **Lehman Brothers**
- **Merrill Lynch**
- **M.M. Warburg**
- **Sal. Oppenheim**
- **Schroder Salomon Smith Barney**
- **UBS Warburg**
- **WestLB Panmure**







## OUR STAFF – MANIFOLD OPPORTUNITIES, EXTRAORDINARY GROWTH

At Deutsche Börse, one of the most important tasks in the area of human resources management is to synchronize the growth of the company and the professional development of staff members. Deutsche Börse has implemented appropriate employee incentives in its recruiting, qualification and remuneration concepts.

## Success has many faces

A company like Deutsche Börse relies on the application of highly specialized knowledge and the use of cutting-edge information technology in all of its operations. In such an environment, qualified employees are the greatest asset. And if a company grows as fast as Deutsche Börse does, it is well justified that the staff, too, expect opportunities for individual growth.

The personnel policies of Deutsche Börse are designed to give equal weight to the demands of investors and employees. Investors recognize that it is the highly educated, skilled and committed employees that ensure the continued profitability and growth of Deutsche Börse. Employees evolve when they are given intellectual challenges, opportunities to learn, and the appropriate freedom to grow in an inspiring environment. This enables them to enhance not only the value of the company they work for, but their own market value as well.

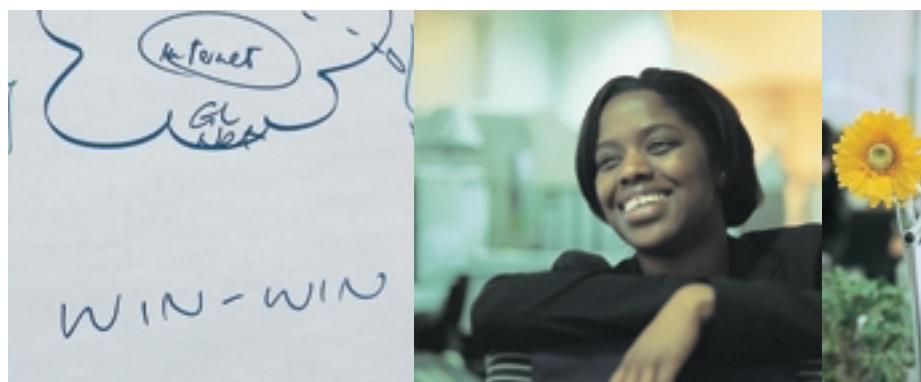
As at 31 December 2001, Deutsche Börse Group employed a total of 1,123 permanent staff members – a 12.2 percent increase over the previous year. 198 new employees were hired during 2001. The fluctuation rate came to approximately 7 percent, compared with 10 percent in 2000.

In terms of its personnel structure, Deutsche Börse has already made the transition from a stock exchange to an international technology service provider. While the number of financial experts remained nearly constant against the previous year, the number of computer scientists, mathematicians and IT specialists, as well as the number of marketing and sales staff members, has increased considerably. The Group's marketing and sales sections, for example, expanded by 45 percent in 2001.

### Staff of Deutsche Börse Group<sup>1)</sup>

Division	2001	2000
<b>Number of employees</b>	1,123	1,001
Xetra	194	174
Eurex	116	86
<b>Information Products</b>	84	72
Systems	536	494
Corporate Center	185	173
XLaunch	8	2
<b>Sales revenue per employee (€ thousands)</b>	748	726
<b>Average age</b>	36.4	36.4
<b>Percentage of university-educated employees</b>	64.4	62.5

<sup>1)</sup> Not including entry group; status as at 31 December of the year stated



Deutsche Börse has a young, highly educated and international team. As at 31 December 2001, it employed 146 staff members from 34 countries other than Germany.

## The right conditions

Highly qualified employees who make company growth a personal priority are justified demanding favorable working conditions – which they will find at Deutsche Börse:

- Three career models open up alternative career paths for employees.
- A qualifications database supports the appropriate deployment of staff members in projects.
- Internet-based training programs and talent management boost the efficiency of in-house training.
- In addition to their salary, employees are given a performance-based bonus. Managers and executives also receive index-based notional stock options as a function of individual performance.



## Innovative career models

Deutsche Börse further developed its career model during the year in review, and now offers three career paths:

- the classic career path, which is based on an employee's general knowledge and leadership skills
- the project path, in which an employee's project management skills come to the fore
- the expert path, which requires in-depth specialized knowledge, and enables employees to work toward the position of Senior Expert.

## Recruiting made swift and efficient

The increasing importance of information and communications technology is also becoming apparent in the recruiting process. More than 80 percent of the job applications received by Deutsche Börse during 2001 were online applications. Most of these were submitted to the recruiting staff at Deutsche Börse via the Group's various websites, which are also linked to the Internet pages of colleges, universities and commercial services providers (electronic job markets). Thanks to the new media, the process of recruiting new employees is swifter, more efficient and more cost-effective. Job ads in printed media or the use of personnel consultants play only a minor role in the recruiting process.



All employees have the option of evolving within their original discipline or switching paths and continuing their career in other areas. In this model, line, project and expert functions are equally important when it comes to professional development. Those who switch to another path do not have to start over, but instead can build on what they have already achieved.

## High-performance qualifications database

Deutsche Börse is a project-oriented company. In order to ensure that suitable employees will be available at all times for upcoming projects, a new qualifications database was launched during the year in review. It contains a profile of all employees, highlighting their specialized skills and experience, the times they are available, as well as their interests and goals with respect to further personal development. The database not only supports planning for individual projects, but also constitutes the basis for on-the-job training and the seminars offered to employees within Deutsche Börse Group.

## E-learning and talent management

In 2001, Deutsche Börse enhanced its staff training program by adding a state-of-the-art component – Internet-based e-learning. At the Deutsche Börse learning portal, employees can select from training topics such as software applications, foreign languages, and specific stock-exchange knowledge. Learning via the Internet enables employees to remain flexible while helping them to create an individual focus so that they can guide their own personal development.

An important challenge for the Group in 2001 was talent management, which involves the selection of so-called high potentials – typically young employees who show exceptional promise – with a view to further enhancing their qualifications. Being a high potential at Deutsche Börse means participating in workshops with managers to devise course-setting strategies for the company, taking part in discussions with Executive Board members, and attending special seminars to acquire other specific know-how. An MBA study program offered by Duke University in Durham, North Carolina, which is primarily Internet-based, rounds out Deutsche Börse's talent management for select staff members.

## Attractive remuneration

An attractive remuneration scheme is crucial during the recruiting process – and is of equal importance when it comes to holding on to skilled and committed employees. At the same time, it also constitutes the basis for sustainable company growth.

The remuneration model of Deutsche Börse comprises fixed and variable income components. In 2001, a further component was added for managers and executives in the form of performance-based notional stock options. These are linked to the development of the Deutsche Börse share price in relation to the Dow Jones STOXX Technology (EUR) index, and are paid out after a holding period of three years if the company reaches long-term, highly ambitious targets. Market comparisons show that Deutsche Börse provides above-average compensation for its employees' efforts, regularly falling into the upper quartile both in the IT industry and among financial service providers.

In 2002, Deutsche Börse will continue to refine the profile of its human resources activities. Items on the agenda include enhancing staff development, intensifying efforts to support high achievers within the framework of talent management and expanding the qualifications database. An additional focus will be to offer more flexible working hours to Deutsche Börse employees. Within the framework of the company's interests, employees can set their own working hours, which includes the option of working on Saturdays.

The following two pages contain a profile of two of our project teams. In collaborating on projects, the teams transcend the boundaries of their own division and set the course for Deutsche Börse's future.



## The GMC team: Interface management and effective communication

GMC is short for Global Markets Concept, and thus also stands for the internationalization of Deutsche Börse's operations (see page 50). Because it is part of the company's growth strategy, GMC has been given high priority, which is reflected in the high expectations made of the team. Their task is to keep the Global Markets Concept at the cutting edge by incorporating innovative products and services into the concept, and implementing them step by step. The success of the project depends upon effective interdivisional cooperation, as well as the skillful management of the many interfaces that such cooperation creates – all of which requires highly specialized skills, as well as clear and open communication.

At present, the team includes experts from the Xetra and Eurex divisions, staff members from Clearstream Banking and specialists from Deutsche Börse Systems – ranging from mathematicians to market experts and marketing specialists.

For the project team members, being part of the GMC team means taking on a challenge while developing their own skills. For Michael Krogmann, who is in charge of standardizing the marketing communication of the participating divisions, working on the project team primarily represents an opportunity to broaden his horizons. "This team has enabled me to evolve considerably because my work is interdisciplinary and I can apply my knowledge of the cash market to the derivatives market", he explains. Thanks to the interdivisional orientation of the GMC team, members get to know their colleagues in other departments on a personal level, which in turn enables them to establish a functioning network.

Many team members were not aware of just how important this project is to them as individuals until the project work was underway. "I am truly proud of the great success of the US Stars and Dutch Stars", says Sandra Voß, who coordinated the relevant activities at Clearstream, "and I know that we all played our part in making it work".



Under the direction of Michael Kremsner (34), Head of the Secondary Markets Department of the Xetra Division, who earned a degree in business studies, and Ralf Dreyer (36), who holds a degree in business administration and is team head in the Product Development Department in the Eurex Division, as many as 50 experts from several countries collaborated during the past year to develop international market segments for the trading platforms Xetra and Eurex.

## The ECCP team: We're all in this together

With the establishment of the Equity Central Counterparty (ECCP), a function that will support securities trading in Xetra and on the floor at the Frankfurt Stock Exchange, the German financial market will assume an active leadership role in the European consolidation process (see page 61). By expanding the Eurex Clearinghouse to include cash market products, Deutsche Börse and its partners are taking a quantum leap into a new era of clearing.

The tasks at hand are enormous. Some 80 percent of the overall value-added chain involved in securities trading is being restructured so that the ECCP can be launched; existing processes and structures must be simultaneously preserved yet redesigned to operate at a higher level of functioning. The project is unusually complex, in part because it involves numerous subsidiaries and divisions of Deutsche Börse AG, but also because each of the company's many partners in the international capital market has its own interests. Yet everyone is in the same boat, and the intention is to launch the ECCP as soon as possible.

Given the complexity of the project, the two project managers for the ECCP at Deutsche Börse – Oliver Vossmann (37), a graduate in business computer science, and mathematician Matthias Preuß (34) – were very meticulous in selecting their team members.

The core team is comprised of some 50 people, including staff members from every Deutsche Börse division as well as partners from the financial community: investment bankers and securities traders, clearing experts, IT experts and risk managers – all people with multifaceted temperaments and styles, who possess a variety of skills and come from a number of different cultures.

All of them are in this together, although in many cases they are motivated by different interests.

“The objective is to work with the many different voices to create a harmonious canon”, says Oliver Vossmann.

Ongoing communication between individuals is imperative if the project is to be successful. The fact that 45 major committee sessions and around 150 bilateral meetings have taken place in just ten months speaks for itself.

For employees, being a part of this team implies both risk and opportunity. The central counterparty is currently Deutsche Börse's most important and most complex project. Thus, there are enormous pressures with respect to deadlines and performance. And yet the commitment is worth it, because those who take on challenges reap great benefits in terms of experience.



What is more, members of the ECCP team will profit not only from the launch of a new industry standard, but will also set the course for Germany's future as a financial centre.

VIEWS ON GROWTH







**Volker Potthoff**  
Responsible for the Xetra Division

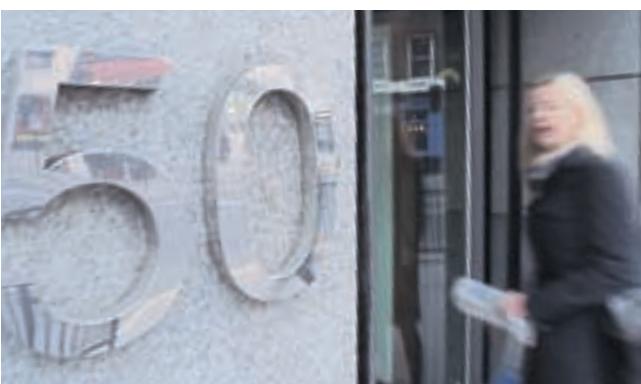
## XETRA – GROWTH THROUGH INTERNATIONALIZATION, INNOVATIVE PRODUCTS AND NEW SERVICES

The Xetra Division is systematically focusing on internationalizing its activities and developing new products and services for issuers and investors. By implementing this strategy, the division further expanded its position during the year in review as the leading European trading platform for new issues and equity trading.

## The economy benefits from efficient trading systems

As the focus of securities trading has shifted from the floor to efficient electronic platforms, the costs of trading have decreased substantially – to the benefit of investors and intermediaries alike. When it comes to economic growth, however, an even more significant advantage lies in the positive impact on corporate financing. The past ten years have shown that the cost of capital declines most rapidly when new trading systems are introduced swiftly and smoothly. Since its launch, the Xetra trading platform has been considered one of the most modern and cost-effective systems in the world, and thus makes an important contribution to the competitiveness of the German economy.

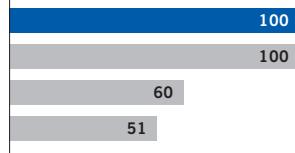
The core business of the Xetra Division is to support securities trading, as well as provide services for all aspects of trading in the following segments: DAX (blue chips), MDAX (mid-caps), SMAX (small caps), Neuer Markt (growth stocks) and XTF (exchange-traded funds). The overall value of the securities traded on Xetra is staggering, which becomes strikingly apparent when Xetra data are compared with key economic ratios (see chart). For example, total order book turnover in 2001 was almost exactly the same as the value of all German exports during the same period. And the trading volume of the Xetra system far exceeded the amount of money in circulation in the Federal Republic of Germany (measured as M1, or coins, bills and demand deposits). Even when compared with the finances of the public authorities, the scope of Xetra is anything but small. Total annual tax revenues collected by all German government agencies correspond to the six months' turnover in the Xetra system.



### Comparison of Xetra trading volumes and key economic ratios

Xetra turnover in 2001 = 100

Order book turnover in Xetra	<b>100</b>
Total export volume for Germany	<b>100</b>
Money in circulation in Germany (M1)	<b>60</b>
Tax revenue <sup>1)</sup>	<b>51</b>



<sup>1)</sup> 2000

Source: Deutsche Börse AG,  
Bundesbank (German Central Bank),  
German Federal Statistics Office



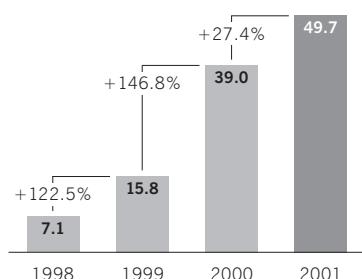
## Equity trading in Xetra: Success in the core business

Equity trading is one of the main engines driving the German economy. This did not change during the year in review, despite the slowdown in the global economy. Even in this challenging environment, the number of transactions executed on the Xetra trading platform of Deutsche Börse continued to increase (+27 percent over 2000). In 2001, Xetra accounted for 86 percent of the overall trading activity in Germany, measured in terms of order book volume. Currently, around 95 percent of transactions in DAX shares in Germany are executed by the electronic system. Observed over the long term, trading volumes in Xetra have continued to increase, although the system did not regain its all-time high of 2000.

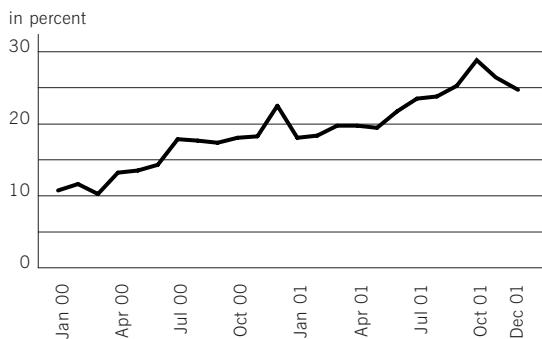
Xetra showed the strongest growth in business with international participants, who, on average, accounted for 20 percent of the system's total trading volume during 2001 (10.1 million transactions); this corresponds to a 54 percent increase over the previous year. With 413 participants in 17 countries and a total of 3,393 traders, Xetra is the most successful trading system in the world (as at 31 December 2001).

### Increasing number of transactions in Xetra

Transactions in millions



### Increasing shares of international participants in Xetra transactions



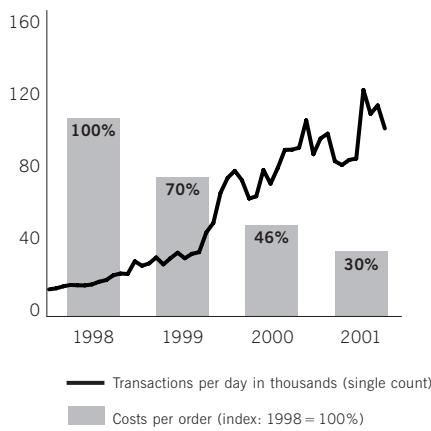
As at 31 December 2001, the Xetra Division – which includes floor trading on FWB Frankfurter Wertpapierbörsé (the Frankfurt Stock Exchange) as well as activity in Xetra – had generated €243.1 million in sales revenue. Owing to the difficult exchange climate and decreased turnover on the trading floor, the division's sales revenue was down by 12.5 percent from the record figures posted in 2000.

The costs incurred by the Xetra Division rose slightly during the year in review, primarily because of investments in developing Internet services. The current year will see a decrease of these costs. Moreover, depreciation increased as a result of ongoing investments in new software versions of Xetra. By contrast, operating costs and network expenses for the Xetra system dropped by 14 percent in comparison with the previous year, amounting to €47.3 million. Network costs declined above all owing to the division's systematic introduction of less expensive Internet-based link-ups as an alternative to standing lines.

Keeping costs per order down is essential for the competitiveness of the Xetra trading system, and committed efforts to reap economies of scale paid off in 2001. As compared with the previous year, unit costs dropped a further 35 percent, which has resulted in an overall decrease of 70 percent since 1998.

In 2001, EBIT decreased by 53.5 percent to €38.4 million, and contributed around 13.8 percent of the consolidated EBIT.

### Scalable Xetra trading system: Growth in volumes reduces unit costs



## Expanding the markets of today, opening up the markets of tomorrow

The Xetra Division is implementing a multi-level strategy to further enhance its market share with respect to equity trading. It intends to expand the global reach of its existing business as well as develop new products and services that are targeted to various customer groups.

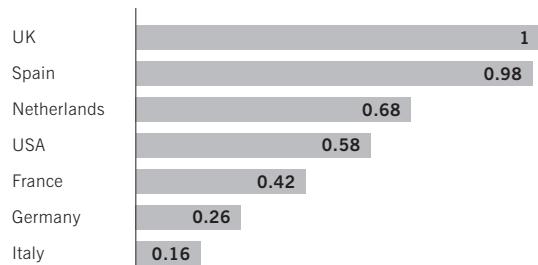
### Home market Germany: Additional growth potential through favorable parameters

Measured in absolute terms, such as market capitalization and the number of listings, the German equity market is one of the largest in the world. However, when looking at the number of listings in a country in relation to its GNP, it is clear that Germany still harbors considerable growth potential. If, in Germany, as many companies were listed on the stock exchanges as in the UK, the number of stocks traded would increase by a factor of 3.8.



### Germany with considerable potential regarding exchange listings

Listings of companies in their home markets relative to GNP<sup>1)</sup>



<sup>1)</sup> Annual GNP, all figures as at year-end 2000, UK = 1

Source: FIBV, IDW

The following factors suggest that this latent potential can soon be realized:

- As a result of the most recent tax reform, companies are expected to spin off their subsidiaries and bring them to the market.
- The tax exemption for capital gains from the sale of equity investments will mean that many companies will have a much larger float. This will increase Germany's weighting in the international stock indices and create a considerable inflow of funds.
- As a result of the pension reforms introduced by Walter Riester, German Minister of Labour and Social Affairs, large cash inflows are expected for funds, which will invest a portion of their investors' money in equities.
- The planned equity capital adequacy rules for the banking industry (known in Germany as "Basel II") stipulate that lending rates for companies are to reflect the level of risk involved, as determined on the basis of ratings. As a result, bank loans will tend to become more expensive.
- The growing number of high net worth individuals will boost the demand for equities.
- Numerous family-owned businesses will resolve the issue of successorship by going public.

Moreover, the Fourth Financial Market Promotion Act (Finanzmarktförderungsgesetz) will continue to improve the statutory framework for securities trading starting in 2002. In addition to giving the exchanges further leeway in developing market segments, the new omnibus law provides for more severe penalties for price manipulation. As a consequence, the number and attractiveness of segments available to issuers and investors will increase, and trading will become more transparent. More stringent disclosure requirements for listed companies will also contribute to transparency.

#### **Neuer Markt: Confidence through transparency**

Deutsche Börse's Neuer Markt is considered to be Europe's largest and most successful exchange segment for young, growth-oriented companies. In terms of trading volume and market capitalization, the Neuer Markt segment captured a market share of 70 percent and 50 percent, respectively. Despite the decline in the Neuer Markt index, every second NEMAX 50 company recorded a profit in 2001.

The large number of new firms has become an important job engine in Germany. In 2001, the companies listed in Neuer Markt employed over 180,000 people, or 80,000 more than in the previous year. Overall, 700,000 jobs in Germany are directly or indirectly dependent on Neuer Markt.

To promote the further development of this engine for growth and value-added, Deutsche Börse AG made the Neuer Markt standards, which are leading in Europe, even more stringent in 2001, with the goal of further enhancing transparency in this market segment.

#### **Stringent standards ensure greater transparency in Neuer Markt**

- As of 1 March 2001, directors' dealings must be publicized. When members of the executive and supervisory boards of Neuer Markt firms trade in shares or other instruments issued by their company, they are required to inform Deutsche Börse AG of such activity within three days. Deutsche Börse then publishes the information on the Internet.
- Since the third quarter of 2001, Neuer Markt companies are required to publish structured quarterly reports. The regulations draw on IAS and US GAAP standards, and stipulate minimum requirements with respect to the information to be included in the balance sheet, the income and cash flow statements, as well as the notes for the reporting period. This is the first standard of its kind in Europe that allows investors to easily compare quarterly reports.
- In October 2001, Deutsche Börse introduced new delisting regulations for the Neuer Markt segment. These regulations enable the market to separate the wheat from the chaff and eliminate the New Economy business models that have proven to be unsuccessful. If a company becomes insolvent, or fails to meet the minimum requirements with respect to average daily price and market capitalization over a certain period of time, it is delisted from Neuer Markt.

By introducing these new standards, the Xetra Division has not only strengthened Neuer Markt's position as the leading market for growth companies in Europe, it has also established a framework in which the segment can continue to develop. Despite major price corrections, it is with good reason that Neuer Markt is considered a role model and a benchmark for transparency standards on stock exchanges.

## The Global Markets Concept: Higher liquidity in international products

Across the world, billions of euros in potential returns have gone untapped because their portfolios are insufficiently diversified. In particular, they do not allocate enough assets to foreign securities, and consequently the value of their investments is subject to considerable fluctuations. This hardly comes as a surprise: currently, investors who wish to invest in foreign shares often have no other choice than to pay high transaction costs on foreign exchanges, or accept wide spreads on their home exchanges.

Over the past 20 years, improved access to the European markets could have boosted the annual yield of German investors by around 1.9 percent – without a concomitant increase in volatility. Given that the total value of all financial investments in Germany came to €4,539 billion in 2000, this increase would have amounted to around €87 billion per year.

As the Xetra system goes increasingly global, it can help resolve this problem and improve the performance of investments. For one thing, participants are becoming increasingly international. As a consequence, foreign investors have easier access to the German market, and can thus take advantage of opportunities to enhance their return and become more diversified. Secondly, there is a growing number of international shares that are listed in the Xetra system and can be traded with narrow spreads.

European network with 413 participants  
as at 31 December 2001



In order to offer investors attractive foreign shares on favorable terms, Deutsche Börse launched its group-wide Global Markets Concept (GMC) during the year in review. GMC intends to expand the trading and settlement platforms of Deutsche Börse AG by adding new international market segments, thereby concentrating liquidity in these products in Xetra. The concept promises to be successful because Deutsche Börse has three important competitive advantages in the European exchange environment:

1. The combination of cash and derivatives markets (Xetra and Eurex) means that different types of investors can custom-tailor the liquidity of their investments, as well as take advantage of hedging opportunities.
2. Intermediaries operate in an attractive marketplace which offers complete coverage of the process chain, including settlement via Clearstream Banking.
3. Deutsche Börse's participant networks in Xetra and Eurex each comprise over 400 members, and constitute the world's largest international trading network.





One of the GMC team's first projects (see also page 40) was to launch Xetra US Stars, a pool of around 200 prominent US shares from the Dow Jones Industrial Average, Standard & Poor's 100, Nasdaq 100 und Dow Jones Global Titans 50 indices. The securities, which can be traded directly in Xetra, are sponsored by five international market makers, also referred to as US market experts. Each day, prior to the commencement of trading in New York, the Dow Jones Industrial Average is calculated on the basis of Xetra prices. The Eurex platform offers options on ten of the most liquid US shares, while Clearstream Banking AG rounds out the services for US Stars by handling the settlement of all orders on the same terms and conditions that apply to German shares.

However, the US Stars segment was only the first of many steps of the GMC. European Stars cover all equities included in the Dow Jones Euro STOXX 50, except those from Italy and Spain. Deutsche Börse, Eurex and Clearstream will continue to use this model of a complete and integrated product and service chain for additional markets. Deutsche Börse has its sights set on segments derived from internationally leading indices.

#### An overview of US segments

These securities can be traded in the US segments in Xetra and Eurex:

- **US Stars in Xetra.** Around 200 US shares from the Dow Jones Industrial Average, Standard & Poor's 100, Nasdaq 100 and Dow Jones Global Titans 50 indices
- **Index funds in Xetra.** Two index funds on the Dow Jones Global Titans 50 and the Dow Jones Industrial Average in the XTF segment
- **US stock options in Eurex.** Ten euro-denominated options on AOL Time Warner, Cisco Systems, Citigroup, EMC, General Electric, IBM, Intel, Microsoft, Oracle and Sun Microsystems

Advantages of Xetra transactions:

- **Convenient.** Orders can be placed via a bank.
- **Swift.** Xetra automatically matches orders.
- **Inexpensive.** Xetra eliminates the brokerage fee for investors.



## **Exchange-traded funds: From launch to leader within two years**

In the past, it was often difficult for small and medium-sized investors to build a broadly diversified portfolio. The alternatives were either to invest directly in a limited number of different companies, or to purchase shares in investment funds. While the latter tend to be highly diversified, their fungibility, however, is somewhat limited in comparison with the shares of a listed company. Moreover, the load and management fees can erode a large portion of the return. Exchange-traded funds, or ETFs, combine the advantages of funds with the benefits of direct investment. They can be traded like shares, and as a rule do not carry a load. In addition, they offer transparency because they are oriented to an exchange index. Thus, exchange-traded funds are of interest to both institutional and private investors.

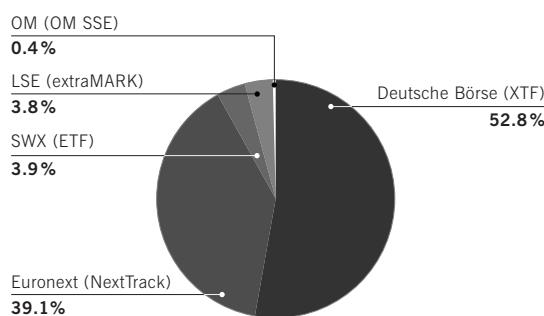
Deutsche Börse was the first European exchange to introduce trading in exchange-traded funds. In the meantime, Deutsche Börse's XTF segment has expanded to include 17 index funds and 11 actively managed funds. In total, XTF posted a trading volume of €24.2 billion in 2001, an increase of €22.6 billion over the previous year. With a market share of 52.8 percent, the XTF segment has become Europe's largest market for exchange-traded funds in the two years since its launch.

Index funds accounted for 93 percent of the total trading volume in XTF, with the remaining 7 percent contributed by actively managed funds. The most actively traded product was the DAX<sup>EX</sup> index fund, which generated €14.5 billion in trading volume during the year in review. The daily trading volume of DAX<sup>EX</sup> is thus roughly equivalent to the volume generated by the Commerzbank share, which is represented in the DAX index.

Exchange-traded funds harbor considerable growth potential. At the end of June 2001, 169 ETFs were listed around the world, representing total assets of €109 billion. Europe has recorded the highest growth rates since trading began in these funds. For 2002, Deutsche Börse alone is expecting 40 new listings in its XTF segment, including several actively managed funds as well as funds exclusively listed in XTF.

## **Deutsche Börse – largest marketplace for ETFs in Europe**

Market share of ETF platforms in Europe, 2001



## **Central and Eastern Europe: Growth markets of the future**

Efficient equity markets can make an important contribution to growth and structural change within an economy. What is true for the wealthy OECD countries is even more applicable to transition countries. Studies conducted by the World Bank clearly prove that, to a great extent, growth in productivity can be stimulated by enhancing the size and liquidity of the equity market. Deutsche Börse AG is helping the countries of Central and Eastern Europe to reap these benefits.

In 2001, FBF Fördergesellschaft für Börsen und Finanzmärkte in Mittel- und Osteuropa GmbH introduced a number of projects to push ahead with the establishment of functional securities markets in Central and Eastern Europe. The highlight of these activities was the technical and organizational support provided to the securities regulatory agencies in Russia, Bulgaria and Hungary. The strong demand for German consulting services in Central and Eastern Europe has not tapered off.

Since August 2001, participants in the New Europe Exchange (NEWEX), the joint exchange operated by Deutsche Börse AG and Wiener Börse AG, have been able to trade Central and Eastern European securities via the Xetra platform. Since November 2001, NEWEX offers continuous trading in select Central and Eastern European shares, with the support of market makers. The segment was launched with eight companies in the power, telecommunications and banking sectors in Russia, Poland, the Czech Republic and Hungary, which together represent a market capitalization of around €50 billion. During the year in review, an average of 54,200 transactions in Central and Eastern European securities were executed each month, generating a sales revenue of more than €260 million.

#### **New services: Focusing on issuers and investors**

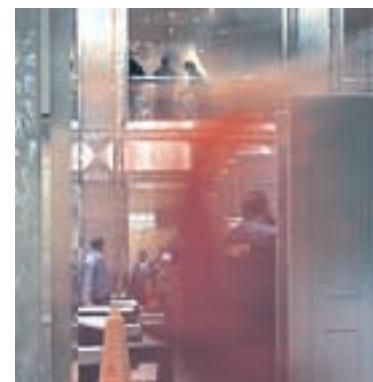
As the financial markets continue to expand and become more standardized, customer support is playing an increasingly important role in the Xetra Division as well. The focus is on the customer, and customer relationship management has become a key approach. The Xetra Division is thus further expanding the scope and quality of its services.

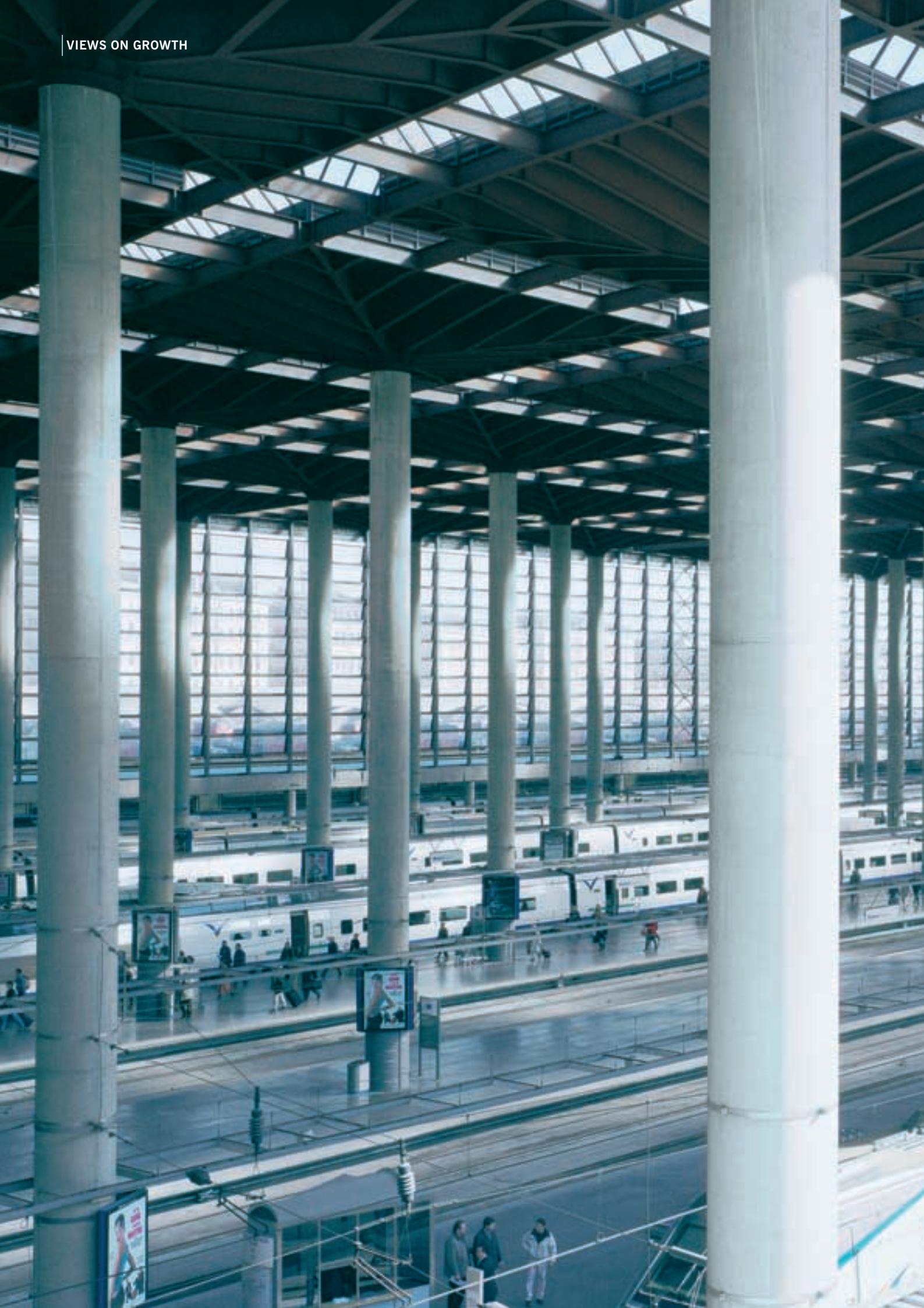
This includes numerous new services such as

- the central counterparty for the cash market (see pages 41 and 61)
- the Listing Center, which provides issuers with information and services on all aspects of going public via Internet
- the call center for issuers, which supports issuers in all matters relating to going – and being – public
- an enhanced version of the Corporate Data Online database (CDO), a central information channel via which issuers communicate corporate data relevant to the financial markets to meet statutory disclosure requirements
- the IAB (Integriertes Aktienbuch), which supports issuers in maintaining an electronic shareholders' record
- Xetra Live, an information screen for private investors with real-time data, and
- the VIP service, which in the future will support large customers in technical matters.

Some services of the division, such as the Internet learning portal, have been available since 2000. Via e-learning, customers and traders can become trained in the use of the Xetra trading system, among other things.

As business becomes more international, the second major component of the division's growth strategy is to expand the range of services for customers and investors. This strategy not only builds on organic growth, but also leaves room for partnerships and acquisitions. Within the framework of this international and service-oriented growth strategy, the Xetra Division of Deutsche Börse is becoming the largest virtual financial service provider in Europe, and as such can serve a worldwide clientele independent of geographic location.









**Rudolf Ferscha (CEO)**

Chief Executive  
Officer Eurex  
Responsible for the  
Eurex Division

**Jürg Spillmann**

Deputy Chief Executive  
Officer Eurex  
Responsible for  
Information Technology

**Daniel Gisler**

Responsible for  
Clearing

**Thomas Lenz**

Responsible for a/c/e –  
alliance/cbot/eurex

**Peter Reitz**

Responsible for  
Business Development

**Michael Widmer**

Responsible for a/c/e –  
alliance/cbot/eurex

## EUREX – BUILDING ON UNIQUE STRENGTHS FOR SUCCESS IN INTERNATIONAL COMPETITION

With the world's largest distribution network for derivatives products, an attractive product portfolio and the integration of trading and clearing, the Eurex Division was the most significant factor in the growth of Deutsche Börse Group during 2001. As the global leader in financial derivatives, Eurex is further expanding its business – on the international derivatives markets, in the area of fixed-income bonds, and in the market for private investors.

## Winning over the international markets with high-quality products

The Eurex derivatives exchange, a joint venture between Deutsche Börse and SWX Swiss Exchange, is the world's largest market for financial derivatives, i.e. handling trading and clearing for futures and options.

2001 was another record year for Eurex. The exchange posted a trading volume of 674.2 million contracts, which corresponds to an increase of 48.5 percent over the previous year. In certain products, Eurex captured more than 90 percent of the European market. Not only has it remained by far the world's largest derivatives exchange; it has actually enhanced its competitive edge over other derivatives exchanges during the year in review.

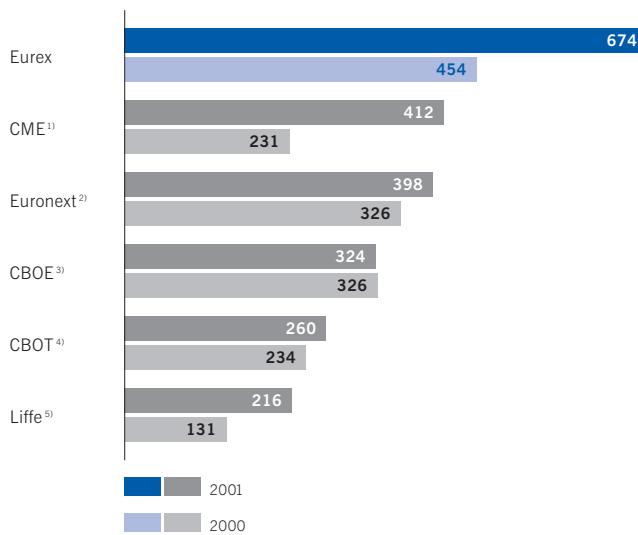
## Strong demand for capital market, index and equity products

The Eurex derivatives exchange offers four different categories of financial derivatives products:

- capital market products, e.g. Euro Schatz, Euro Bund, Euro Bobl
- money market products, e.g. Euribor futures, options on Euribor futures
- equity products, e.g. options on the shares of German, Swiss and international issuers
- index products, such as futures and options on the DAX, NEMAX or Dow Jones Euro STOXX.

### Eurex – the leading international derivatives exchange

Annual turnover in millions of contracts



<sup>1)</sup> Chicago Mercantile Exchange

<sup>2)</sup> Joint venture of the derivatives exchanges in Paris, Brussels, and Amsterdam. The volume of the index contracts traded on Euronext in Paris is considerably smaller than that of the other exchanges

<sup>3)</sup> Chicago Board Options Exchange

<sup>4)</sup> Chicago Board of Trade (20.2 percent of its annual turnover accounted for by a/c/e)

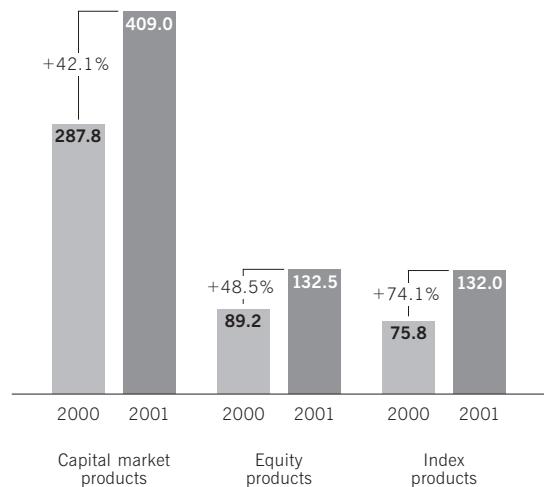
<sup>5)</sup> London International Financial Futures and Options Exchange

Capital market products are Eurex' core business. In 2001, turnover in this segment came to 409.0 million contracts, which corresponds to a 90 percent share of the European market and a 60 percent share of the global market. Of the four product categories, capital market products recorded the highest absolute growth in 2001, with an increase of 121.2 million contracts. The most actively traded product was the Euro Bund future with 178.0 million contracts, or 43.5 percent of the overall trading volume in the capital market segment. 99.6 million Euro Bobl futures contracts were traded on Eurex during the year in review, representing a gain of 59.3 percent over the previous year, while the Euro Schatz future more than doubled its volume in 2001 to 92.6 million contracts.

Trading volume in Eurex' equity and index-based derivatives also showed substantial gains during the year in review, increasing by 60.3 percent to around 264.5 million contracts. The greater part of this figure, or 132.5 million contracts, was generated by equity products, while index derivatives accounted for 132.0 million contracts. In fact, the derivatives exchange recorded average increases as high as 74.1 percent in index products such as futures and options on the DAX, the Dow Jones Euro STOXX 50 or the NEMAX 50. This segment continues to show great growth potential. Money market products are not that liquid on Eurex.

#### Increasing trading volumes in Eurex' three most important product categories

in millions of contracts



## Exceptional performance

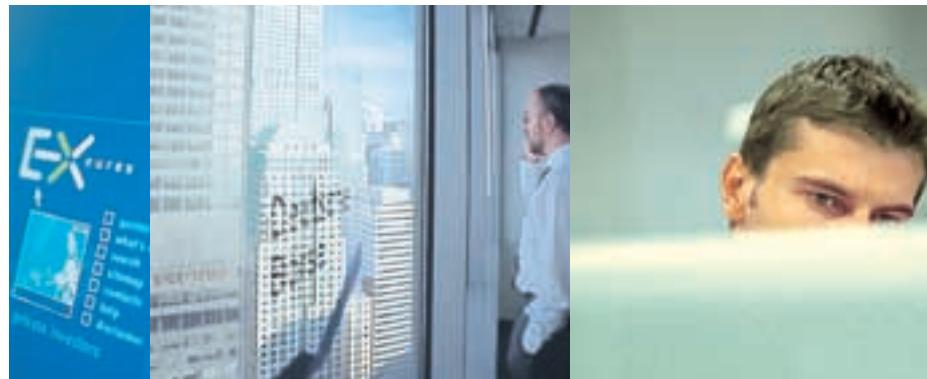
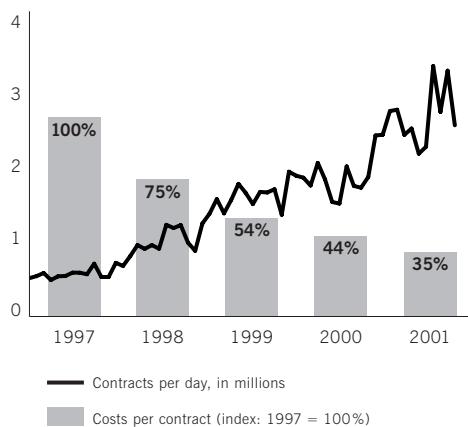
80 percent of the earnings recorded by the German-Swiss joint venture are posted to the income statement of Deutsche Börse AG as earnings contributed by the Eurex Division. During the year in review, the Eurex Division generated sales revenue of €268.8 million, up by 67.6 percent over the previous year. This increase in Eurex' sales revenue is overproportionate when compared to the number of contracts traded, the main reason being that more and more premium products were traded.

Costs stood at €252.6 million in 2001, having climbed by only €32.4 million, or 14.7 percent, over the previous year. This increase is primarily attributable to the fact that Helsinki Exchanges (HEX) receive a share of the fees levied by Eurex for NORDIC products traded on the Eurex platform, and that trading in these products was very lively in 2001.

Furthermore, licensing costs for the underlying instruments of the products traded on Eurex increased by 71 percent to €8.4 million, owing to higher exchange turnover. Systems and network costs rose by 10 percent to €64.0 million, mainly as a result of higher expenses for operating the Eurex Repo platform, both for the Swiss repo market and for Eurex Repo GmbH.

The EBIT of the Eurex Division came to €99.3 million in 2001, which represents an increase of around 855 percent in a year-on-year comparison, and accounts for 35.7 percent of the Group's total EBIT. Thus even in times of high volatility on the capital markets and less trading activity on the cash market, Deutsche Börse Group was able to grow profitably.

## Scalable Eurex trading system: Growth in volume reduces unit costs



## Eurex puts its unique strengths to optimal use

What enabled the Eurex Division of Deutsche Börse AG to achieve such exceptional growth in the fiercely competitive derivatives market? There were several contributing factors:

- Eurex has the world's largest derivatives distribution network, comprising 427 banks, brokerages and financial service providers in 17 countries. Moreover, Eurex operates its own electronic communication networks (ECNs), such as Eurex Bonds, that enable it to tap into new markets.

- Eurex has an exceptionally broad and attractive product portfolio that includes capital market, index, equity and money market products.
- With Eurex Clearing AG, Eurex offers fully integrated trading and clearing, and thus, in comparison with other international exchanges, can give participants the most value for their money – in other words, the lowest prices for trading and clearing, combined with the highest quality services.
- Eurex possesses exceptionally high-performance and secure IT systems, which can safely handle record volumes as high as 5.7 million contracts in one day (as was the case on 15 November 2001). For participants, the availability rate of the Eurex systems was again 99.9 percent in 2001.

During the year in review, business in European products was particularly favorable. The international derivatives business was also extremely successful. Eurex plans to secure this growth with its derivatives on bonds and a heightened interest in derivative products on the part of private investors.



### The central counterparty for shares

By the first quarter of 2003, Deutsche Börse AG and Eurex Clearing AG will offer a central counterparty function for equity trading in Xetra and on the floor (the Equity Central Counterparty, or ECCP; see also page 41) – a functionality that already exists in the derivatives market. Since its founding, Eurex Clearing AG has functioned as a central counterparty for derivatives on interest rates, shares and indices. In establishing the central counterparty for equities, Deutsche Börse intends to further boost its value-added in the cash market.

The ECCP works by participating in trades as a counterparty for both buyer and seller, who thus conclude the transaction with the central counterparty rather than with each other. Each transaction remains anonymous. The central counterparty not only performs the settlement of transactions, but also assumes the risk of default. Participants in the cash market enable the central counterparty to perform its function by putting up margin in the form of cash, securities or book-entry securities, which also substantially reduces their risk.

Furthermore, the central counterparty considerably lowers settlement costs for participants through the process of netting transactions. At the end of the trading day, the central counterparty nets the purchases and sales of each participant, which means that participants need only settle their daily balance. The netting process also reduces the amount of margin required. Once the necessary investments have been made with respect to the IT infrastructure and risk management, participants will reap considerable cost advantages over the medium term.

Deutsche Börse's central counterparty for the derivatives and cash markets will make an important contribution to the further development of the financial markets – and is a step in the right direction toward a secure future, for both the German financial market and its participants.

### European products make the running

In 2001, the Eurex trading platform generated most of its turnover in classic derivatives. However, derivatives are constantly evolving as the financial sector becomes more international. Index derivatives which are based on indices with an international orientation such as the Dow Jones Euro STOXX 50 show particularly strong growth. In addition, many new products are being introduced to the market, for example options and futures on the indices of high-growth sectors such as telecommunications, banking or healthcare.

European products were clearly in the front running as regards the relative growth of trading volumes in the individual product categories. Futures and options on the Dow Jones Euro STOXX 50 exhibited particularly strong growth, doubling their contract volumes – and thus confirming the trend toward international and sector indices.

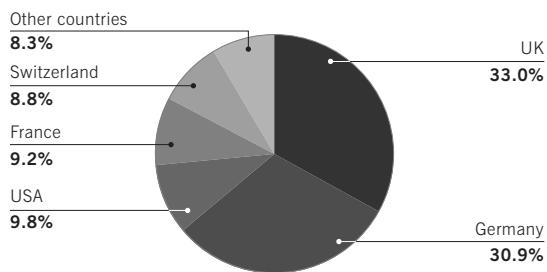


## Mounting success in foreign markets

Not only the range of products offered but also the circle of participants is becoming more and more international. Outside of Germany, the Eurex Division is growing at an impressive pace. In the US and the UK, for example, the number of contracts traded on Eurex was unusually high in 2001. In the second half of the year, Eurex participants in the UK generated 33.0 percent of the trading volume – for the first time outpacing German participants, who accounted for a share of 30.9 percent.

### Eurex customers worldwide

Trading volume according to region



## The new EEX – merging for the market

Frankfurt-based European Energy Exchange AG (EEX), in which Eurex holds an ownership interest of 46.5 percent, has merged with Leipzig Power Exchange GmbH (LPX) to create the EEX European Energy Exchange AG in Leipzig, thereby putting Deutsche Börse Group at the forefront of the European energy trading market. With some 90 participants from nine countries, the new EEX will become Europe's leading energy exchange in the spot and derivatives markets. The advantages are obvious: in the future, participants will be able to focus on a single German energy exchange, thereby considerably reducing their expenses for admission, connectivity and operations. They have access to the existing range of products, the established infrastructure and the participant networks of both exchanges. In addition, they will benefit from the pooling of liquidity in one market.

The new EEX European Energy Exchange AG will utilize both of the Deutsche Börse systems, Xetra and Eurex, further adapting and developing them for trading in energy. The company also intends to open up other energy markets. With EEX, Deutsche Börse has established an integrated, well-positioned electricity exchange for Central Europe in Germany, the region's largest energy market. The EEX is the first successful step in Deutsche Börse's strategy of opening up and establishing new markets beyond the financial sector, and having participants become financially involved in the relevant operating companies.

One of Eurex' international projects is a/c/e, a joint venture with the Chicago Board of Trade (CBOT), which launched the Eurex trading system in August 2000. The new platform developed exceptionally well in 2001, generating a volume of 52.6 million contracts, or a share of 20.2 percent of CBOT's derivatives transactions. At present, around 50 percent of Chicago's turnover in the most important financial instruments is generated on the a/c/e platform.

Eurex' cooperation with Finland's Helsinki Exchanges (HEX), which enables participants to trade HEX derivatives on Eurex, also developed favorably during the year in review. The most important security was Nokia, with a trading volume of 14.6 million contracts. In this area as well, Deutsche Börse was able to utilize synergies between the cash and derivatives markets – Nokia is one of the most liquid securities on the cash market, too.

The Eurex Division intends to continue its international growth by expanding its business in stock options, index and capital market products, as well as by establishing new markets with European and US products.

#### **Bonds and private investors present growth opportunities for Eurex**

In 2001, the Eurex Division was also able to substantially boost turnover in individual product groups such as fixed-income derivatives, in part because investors are putting more emphasis on risk management. To an increasing extent, they are using derivatives to hedge their securities portfolio against price risks. The Euro Schatz future, for example, has posted a triple-digit increase in turnover since it was launched in October 1998. The Eurex Division is confident that the market for derivatives on fixed-income products will continue to show exceptional and sustainable growth in the coming years.

Not least of all, these growth expectations are attributable to further improvements in product quality, which include enhancements in the components and performance of the electronic systems, and the efficiency of clearing and settlement. The integration of trading and clearing enables the Eurex Division to significantly improve its portfolio of services, as well as pass considerable savings on to its participants.

The Eurex Division is also expecting additional growth in the market for private investors. The first step has already been taken: since April 2001, Eurex and Börse Online have offered joint seminars for private investors in various cities, with the goal of introducing them to methods of investing in the derivatives market while heightening their awareness of the risks involved. The seminars focus on hedging strategies that utilize derivatives transactions and risk diversification on the basis of broad indices.

In the future, the Eurex Division also intends to systematically expand on its strengths in doing business with institutional investors.









**Christoph Lammersdorf**  
Responsible for the Information Products Division

# INFORMATION PRODUCTS – GENERATING GROWTH WITH PREMIUM PRODUCTS

As Deutsche Börse's information factory, the Information Products Division uses its scalable and flexible IT systems to turn raw data into "refined" information – a strategy that enables it to create innovative premium products for market participants and generate additional growth for Deutsche Börse.

## Increasing demand for information

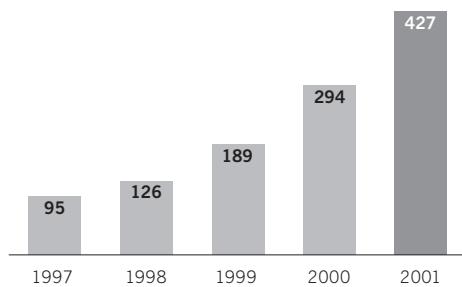
Information is what creates transparency in the capital market; it also constitutes the basis for every investment decision. Investors need up-to-date and accurate information that has been tailored to their needs – and they must be able to access this information at all times, in all places.

The Information Products Division of Deutsche Börse Group satisfies market participants' demand for information. It is a one-stop source for information on prices and exchange turnover, as well as for the key ratios derived from these data, such as indices and statistics.

The Information Products Division (IP) posted considerable growth during the year in review. As at 31 December 2001, IP serviced 427 customers – mostly data vendors – 45 percent more than in 2000. The group of 20 customers that contributed most to IP's sales revenue already includes six banks that are the division's direct contracting partners, in addition to 14 vendors. This provides further confirmation of the clear trend toward business with end-users. Now that all technological barriers have fallen, customers are increasingly tapping their information directly from the source instead of utilizing the intermediation services of vendors.

### IP's customer base continues to expand

Number of customers



In 2001, IP generated sales revenue of €109.9 million – an increase of 33.2 percent over the previous year. The innovative products introduced in 2000 and 2001 proved to be highly successful, accounting for 40 percent of the increase in sales revenue.

The division once again posted its highest revenues in its core business – the provision of price information. The following areas also contributed to revenue:

- developing and licensing premium products, such as indices
- supplying financial services providers with back-office services, such as TRICE, the notification system for securities transactions
- developing and marketing Internet B2B tools such as X-FIT, the financial information terminal for banks, insurance companies and investment funds
- price information for the fixed-income bond segment.

In the first half of 2001, the bulk of costs incurred by IP went toward implementing the new price system, CEF (Consolidated Exchange Feed). Since 30 June 2001, IP customers have been receiving their data exclusively via CEF, which has resulted in a marked decline in costs starting in the third quarter of 2001.

Because sales revenue increased significantly while costs rose only slightly, the EBIT of IP soared by 150 percent in financial 2001 to €17.0 million. In the second half of the year alone, the EBIT of the division had climbed by 88 percent in comparison with the first half of the year.

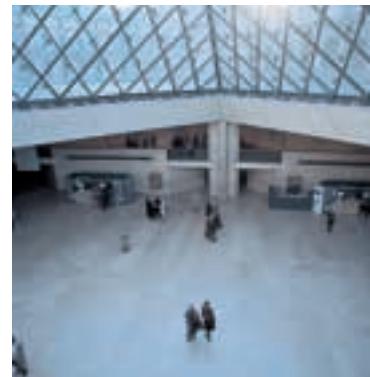
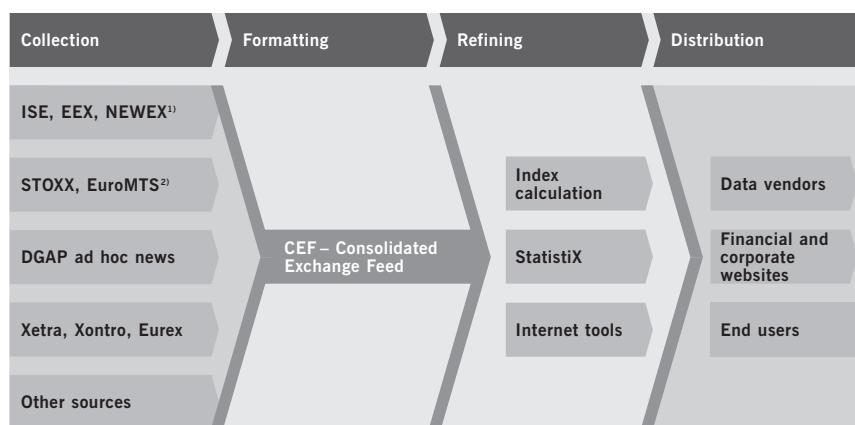


## The business model of the information factory

IP is Deutsche Börse's information factory – here, information is collected, formatted, refined and distributed. As price data continuously stream in from the trading systems of Deutsche Börse and other sources ("collection"), they are concatenated and standardized ("formatting"). Then, with the help of flexible IT systems, the division uses them to calculate other information products ("refining"). IP delivers price data and refined products to information brokers as well as to banks, securities traders or information portals in the Internet ("distribution"). The premium products yielded by this process offer a combination of individual components that is unique in the financial information market.

IP's innovative business model revolves around a system that generates a central data stream – CEF, which was launched in financial 2001. It consolidates the large quantities of data coming in from Deutsche Börse as well as other sources, and processes them in conjunction with the other IT systems to create products that are in tune with the needs of the market.

### Deutsche Börse's information factory



<sup>1)</sup> Exchanges outside Deutsche Börse Group that are insourcing customers of Deutsche Börse AG

<sup>2)</sup> Data producers with proprietary systems



### **Collection: Manifold sources of information**

IP primarily uses raw data generated in the exchange systems Xetra, Eurex, and Xontro, and in other areas of the corporate group – for example, the spot and derivatives market for energy (EEX) – as well as weather data. Moreover, IP has tapped into additional sources of information, in some cases acquiring exclusive rights to the data it obtains. For example, the division gathers price data generated by the bond trading system EuroMTS and by the individual companies in the MTS group, for which Deutsche Börse functions as exclusive distributor. Its partners in Germany include the German regional exchanges and the data service WM Wertpapier-Mitteilungen; abroad, its partners include the index provider STOXX and the Irish Stock Exchange. They provide IP with relevant and exclusive raw data which it collects during this first stage. Not all of this information is price data; the division also gathers disclosure announcements from Deutsche Gesellschaft für Ad hoc-Publizität, for example.

### **Formatting: All-round data management**

In the second stage of the production process, the data flowing in from various sources in a wide variety of formats are standardized, classified and concatenated. CEF processes the data such that they are suited to the needs of vendors, who benefit from not having to invest in their own expensive IT systems and additional personnel in order to bring specific information products to the market.

CEF not only processes data but also stores it temporarily. All information generated, such as opening and closing price, the high and low price of a share, or the development of an index during the course of a day, is saved for a maximum of ten days. During this period, they can be delivered at any time. Trading volumes or weighted average prices can also be called up from this pool of data.

### **Refining: Added value with premium products**

The third step in the process chain – refining – is what generates value-added for customers and for Deutsche Börse. CEF works in combination with the flexible IT systems to consolidate formatted data into high-quality information products. These include:

- classic index products such as the DAX, NEMAX and MDAX indices. Licensees use information on index products in the DAX group for derivatives trading and for the rapidly growing ETF segment.
- innovative indices such as the Sentiment or BayX index. The Sentiment index is a trend indicator, and depicts how investors expect the markets to develop in the future. The Bavarian index BayX shows the development of 30 companies in the DAX, SMAX and Neuer Markt segments that are located in Bavaria.
- information products geared to the requirements of investment funds, for example the continuous calculation of the net asset value (NAV) of shares in investment funds. The NAV represents the true composition of a fund; thus, when the NAV of an exchange-traded index fund has been calculated accurately, investors have an idea of the fund's fair value, which supports them in making an appropriate investment decision.

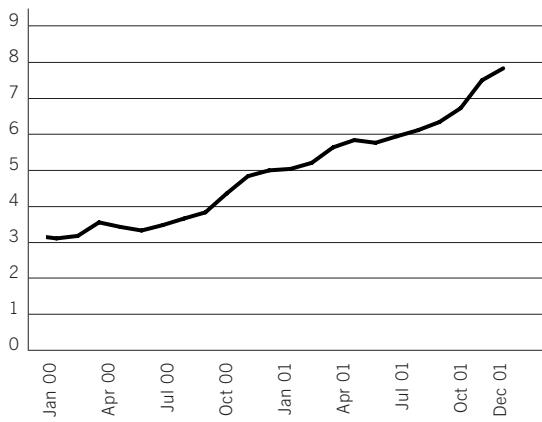
Cash market activity in ETFs and trading in futures and options on the DAX or other indices promote the development of new information products. These in turn enhance the liquidity and transparency of the market, and help to further boost trading volume.

## Distribution: Actively marketing IP products

In the last stage of the value-added chain at the information factory, the data are bundled into packages and marketed. Be it particular combinations of prices generated on the floor or in Xetra, specific sector indices or exclusive rankings – these information packages are tailor-made for the needs and specifications of the vendors and end users. For example, the division has consolidated the data generated by Neuer Markt to create new packages that have greater utility for vendors and customers. The success of this approach is evident, as the revenues yielded by these Neuer Markt data have tripled.

## Development of daily data volume

Number of data records per day, in millions (monthly average)



## CEF: Scalability and flexibility

In 2001, the IT systems were extensively upgraded. The focus was on CEF. The system can process increasing input, throughput and output volumes without a corresponding linear increase in costs. The scalability and flexibility of CEF are manifest in all four stages of production at the information factory:

- Collection. The number of data sources increased by 30 percent during 2001. Should additional sources be linked up to the system, only the access software (feed handler) needs to be adapted.
- Formatting. Since the launch of CEF, throughput has increased by 32 percent to an average of 7.9 million messages per day. Yet the system's capacity limit has not been reached – the throughput volume can be increased further still by adding more processors.
- Refining. The number of information packages that have been refined and marketed has nearly tripled.
- Distribution. CEF offers vendors greater flexibility than the old systems. With just a few additional interfaces (gateways), vendors can maintain multiple links to the system. The number of user accounts maintained by vendors and end users has likewise tripled – at very low added cost for IP.



In creating CEF, the Information Products Division has built a unique IT system that can accommodate innumerable ways of refining raw data. Thanks to its scalability and flexibility, the system can also handle an ever-increasing load – be it in terms of new sources of information, new information products, or new customers.



### Data warehouse StatistiX: Rounding out CEF

CEF mainly processes and distributes current data generated by Deutsche Börse and other sources without storing them over the long term. The storage of data is handled by the high-performance data warehouse StatistiX – the optimal counterpart to CEF. By storing static data (i.e. data that are no longer current and thus not subject to change), StatistiX currently enables trading activity to be analysed in nearly 400 ways. It also provides for more extensive analyses that can be tailored to individual needs: cluster analyses, rankings or trend forecasts. These analyses can take into account every single transaction, for example, with exact information on volume and price. Just like CEF, StatistiX is configured to the specific needs of Deutsche Börse and its customer network, and can be adapted to serve other purposes as well.

**iBoxx Ltd., the joint venture of Deutsche Börse and Europe's leading investment banks, provides the financial market with bond prices and indices**

Deutsche Börse's cooperation partners are:

- ABN AMRO
- BNP Paribas
- Barclays Capital
- Deutsche Bank AG
- Dresdner Kleinwort Wasserstein
- Morgan Stanley Dean Witter
- UBS Warburg

### Pushing forward into new markets

Deutsche Börse also uses the information factory IP to open up new business fields for the Group. Take the bond segment, for example. Whereas the exchanges play a leading role in equity trading in Europe, international trading in bonds still takes place primarily over-the-counter via telephone. Thus far, up-to-date and reliable price information on bonds has not been available in the financial market.

In order to close this gap, IP teamed up with the seven leading European investment banks in bond trading, and on 1 August 2001 launched the company iBoxx Ltd., which provides the financial market with real-time prices and indices for bonds, including data on government and corporate bonds as well as Pfandbriefe. The banks send their binding buy and sell prices online to Deutsche Börse, where, each trading day between 9:00 a.m. and 5:15 p.m., the data is consolidated to create an index that is available every minute on the minute in real time.

IP delivers more than indices via iBoxx. Since December 2001, it has also provided real-time consolidated prices for the individual bonds that are used to calculate the iBoxx indices – an information product that is unique in form and quality.

## Expanding range of products – growing profitability

IP is growing by systematically expanding the depth and breadth of its product line – by opening up new markets and concentrating on systems and customers.

The division offers its customers an extensive range of information products in the areas of stocks, bonds, derivatives, tools, analyses and indices. Moreover, IP's products are tailored to the needs of the individual customers, and include standardized products as well as highly specialized information products. For example, the private investor can view every share in the Xetra order book via the Internet at reasonable cost.

In the coming years, IP will function as an international information provider, offering comprehensive and indispensable information products all along the value-added chain for securities information. It will target exchange-driven and off-exchange markets equally. The goal of IP is to offer exclusive information on as many markets as possible to all participants in the global capital market – irrespective of when and where this information is required.

To this end, the division plans to continue on the strategic path it has chosen

- further expanding its exclusive database
- further developing its highly efficient, scalable and flexible information technology, and
- actively marketing its information products and further facilitating access to these products for participants.

IP will continue its strong organic growth. Starting in 2002, the cost curve will continue to level out. Now that the existing IT systems have been upgraded, the division's cost-intensive projects are concluded for the time being. In the future, IP will continue to invest in developing additional premium products. Owing to increasing revenues in combination with a moderate rise in costs, the profitability of the division is set to climb further in the coming years.









**Martin Reck**  
Responsible for Xlaunch AG

# XLAUNCH – DEVELOPMENT LABORATORY AND E-MARKET FACTORY FOR NEW SPOT AND DERIVATIVES MARKETS

After investing in the expansion of its infrastructure during the year in review, Xlaunch AG is now optimally prepared to open up future growth areas for Deutsche Börse. As Deutsche Börse Group's e-market factory, Xlaunch is responsible for the design and operation of new electronic market-places. The division's goal is to become the leading initiator of electronic trading, and operator of trading platforms in markets for commodities and services as well as OTC financial products.

## The financial markets lead the way

As one of the leading operators of exchange-based marketplaces, Deutsche Börse is excellently poised to tap into the growth sector of new electronic markets, which are primarily Internet-based.

These new electronic markets have considerable potential, as is demonstrated by the success of electronic trading systems, which have significantly enhanced the efficiency of the financial markets. With the help of the Internet, mechanisms created for the financial markets can increasingly be transferred to other industries. As a result, many things that are of value to companies – which can include goods as well as services or rights of use – will in the future be traded on electronic markets with continuous price determination.

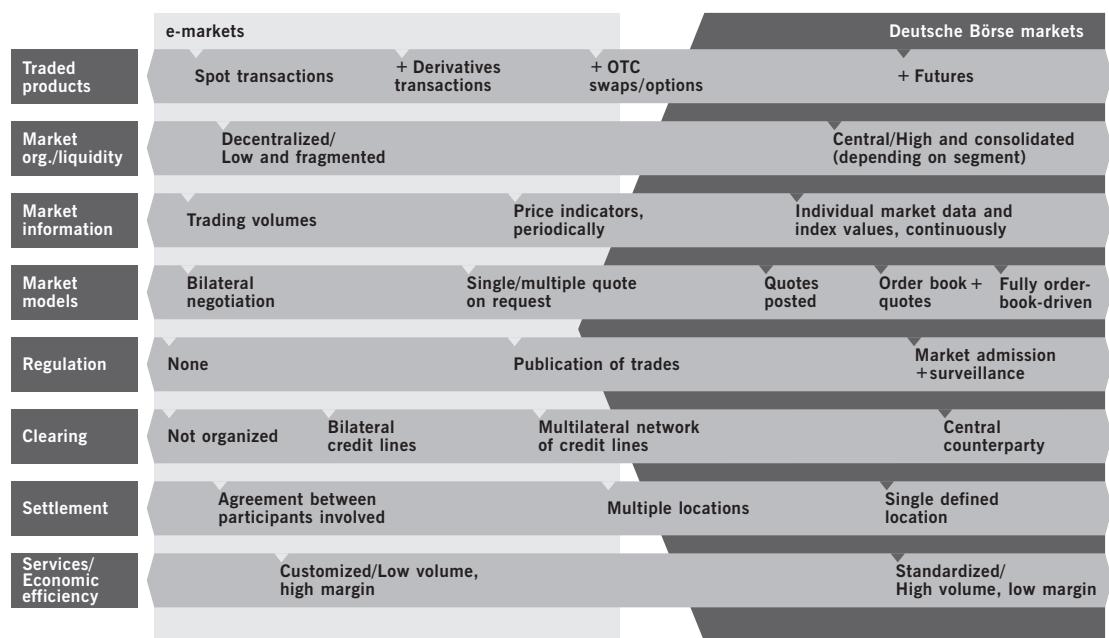
Many new electronic markets are currently in the process of being established, such as the market for weather derivatives (see also “New markets in sight” on page 80); others have existed for some time and have now entered a transition phase. Their efficiency is increasing dramatically, and the division of labor along the value-added chain is evolving after remaining unchanged for quite some time. Initially, trading volume in the new electronic markets will be very low. Most of these markets still have a long way to go before they will be able to offer a broad range of information on market activity and the integration of trading, clearing and settlement that we have come to expect from exchange-based markets – let alone take steps toward consolidation.

In effect, operating these product markets as e-markets requires the entire package of high-quality services that Deutsche Börse currently provides for stock exchanges. The components of this package range from defining and developing market models and products for trading as well as organizing and operating the markets, to providing for the clearing and settlement of transactions (see chart on the following page).



The mission and goal of the Xlaunch Division is to transfer Deutsche Börse's knowledge and experience in developing and operating electronic trading platforms from the market for financial instruments to new markets.

### Deutsche Börse opens up new e-markets with Xlaunch



### Full service for marketplace operators

A successful marketplace developer and operator needs to be highly flexible so that it can recognize and attract markets which are still in the initial stages of developing an electronic trading platform. And this means being flexible both in designing the technical infrastructure and in adapting its existing range of services to the needs of the new market.

The services offered by Xlaunch range from research on and launch of markets, to the development of the technical and organizational aspects of the marketplace, to platform operation and the creation of market indices. The technology is a central issue here. It must be able to operate multiple marketplaces simultaneously and independently of one another. The systems also need to be flexible enough to be quickly configured for new market models, and to be expanded as trading volumes increase.

Xlaunch AG wants to support institutional customers with a variety of needs using its spectrum of services. This entails offering trading platforms for individual providers and their customers, marketplaces for trading between intermediaries, and open marketplaces.

The tasks of the Xlaunch Division include not only the launch and operation of markets, but also the provision of capital. The division supports new marketplace providers with start-up or risk capital in combination with other services such as the establishment of a trading platform. It is the intention of Xlaunch AG to invest in companies with high growth potential, either integrating them in the Deutsche Börse corporate group, bringing them to the stock exchange, or selling them to a partner company.

Xlaunch can meet all the needs of marketplace initiators as a neutral provider, without a vested interest in a particular sector. This gives it a competitive edge. In most cases, the founders of Internet marketplaces concentrate mainly on technology; by contrast, Xlaunch works with all the components that are essential for creating an electronic marketplace – know-how, capital, technology and management. It thus bundles all areas of expertise of Deutsche Börse and offers them to the electronic platforms industry as a compact package of services.

#### **Xlaunch – range of services**

- Developing new spot and derivatives markets for standardized financial instruments and other products as well as services (including market research)
- Establishing and operating electronic marketplaces, covering both technical and organizational aspects
- Comprehensive consulting for electronic marketplaces, in combination with equity participation



## Initial success as intensive investments continue

While 2000 was wholly taken up with the founding of the division, Xlaunch generated sales revenue of €2.4 million during the year in review, primarily in the area of software development and consulting services. In 2001, Xlaunch handled three times as many projects as in the previous year, while the number of employees increased from six to eight. The division's knock-on financing in 2001 came to €8.3 million, which includes personnel and project costs, as well as investments in the technical infrastructure and expenses for external consultants who assisted in the establishment of the company. The overall EBIT for Xlaunch in 2001 stood at –€5.9 million.

## New markets in sight

In establishing new marketplaces, the Xlaunch Division is focusing on two main areas: on the one hand, standardized products and services; on the other, new commodities such as telecommunications bandwidth or transportation capacities.

To develop markets such as these, Xlaunch AG approaches the key players in the relevant sector:

- suppliers, buyers and sellers, as well as the traders and brokers of the respective products
- financial service providers, such as investment banks or industrial insurance companies that wish to use derivatives on the new products for risk diversification
- investors seeking promising opportunities in innovative markets.



One of the up-and-coming electronic markets that Xlaunch systematically analyses is the market for weather derivatives. Weather derivatives have their origins in the energy industry, where they are used to hedge against fluctuations in temperature. The US Department of Energy estimates that around 14 percent of the American economy is directly dependent on the weather. It is only logical that other sectors, such as tourism, airports and agriculture, have also begun to develop an interest in weather derivatives.

At present, weather derivatives are still sold primarily by investment banks, reinsurers and power companies, which thus far have always traded these instruments in the OTC market. In the future, however, weather derivatives will also be available as standardized products and fungible risk positions that can be traded through intermediaries in a secondary market operated via an electronic platform. The user purchases the weather derivatives in a primary market that is also served by an electronic trading platform. Thanks to its extensive know-how, Xlaunch AG can provide for both primary and secondary markets.

In addition to its focus on markets for standardized products and services, the Xlaunch Division will also concentrate on spot and derivatives markets for financial products traded in the OTC markets.

## Future growth in e-business through ongoing innovation

The strategic goal of the Xlaunch Division is to become the leading initiator of electronic trading, and operator of trading platforms in markets for commodities and services. In order to reach this goal, Xlaunch will do more than just provide consulting services in 2002. It intends to establish two marketplaces on its own highly flexible trading platforms, as well as create price indicators for other, less developed markets. Moreover, Xlaunch will function as a technical operator for marketplaces through which it intends to tap into new sources of revenue.









**André Roelants (CEO)**  
Clearstream International

## CLEARSTREAM – ENHANCING SYSTEM FUNCTIONALITY, FORGING AHEAD WITH GLOBALIZATION

Deutsche Börse's plans to acquire a 100 percent interest in Clearstream International will open up entirely new opportunities in the European clearing and settlement market – integrated IT systems, a jointly operated central counterparty for equity trading in Germany, and an extended range of products. The synergies created by these developments will reduce costs, while at the same time boosting turnover.

## Clearstream maintains its leading market position in Europe

In securities markets where trading volume is high – as is the case in the European capital market – there is also great demand for the safe custody of securities, as well as for the clearing and settlement of transactions. Millions of securities require administration, transactions must be executed quickly, and the claims and liabilities arising from stock and derivatives transactions have to be netted continually.

As Europe's leading clearing organization, Clearstream International handles the clearing and settlement of securities transactions, in addition to offering a full spectrum of safe custody services. During the year in review, Clearstream continued to expand with the market

- in quantitative terms: through an increase in the volume of securities held in safe custody, and in the context of further internationalization
- in qualitative terms: by enhancing the functionality of the "Creation" settlement platform.

In 2001, as in previous years, Clearstream's core business focused on the safe deposit and administration of securities. Most securities are no longer stored and transported physically, but instead are recorded solely as information.

As at 31 December 2001, the vaults of Clearstream International contained around 150,000 different certificates held in collective custody. The total value of the securities deposited in Luxembourg and Frankfurt came to around €7.5 trillion.

### The planned acquisition of Clearstream

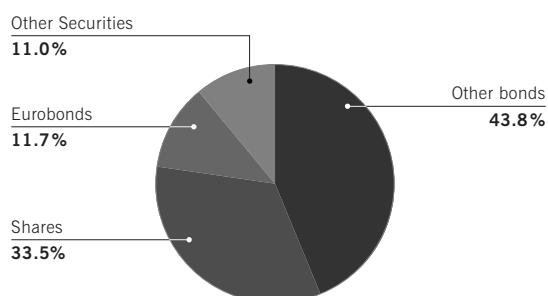
During the year in review, Deutsche Börse AG held a 50 percent interest in Clearstream and plans to acquire the remaining 50 percent owned by the holding company Cedel International S.A. Cedel's board has already approved the acquisition offer.

In acquiring Clearstream, Deutsche Börse is creating the most efficient and cost-effective process chain in the European securities industry. It will offer products and services for every aspect of the securities industry – from trading to information products, to clearing and settlement. Because all stages of the value-added chain are more tightly integrated, new products and services can be developed more rapidly, thereby increasing value for customers and shareholders alike.

The acquisition will enable Deutsche Börse to further expand its position as a leading one-stop provider of securities services. Within Deutsche Börse Group, Clearstream International can continue to build on its success and further enhance its attractive range of services.

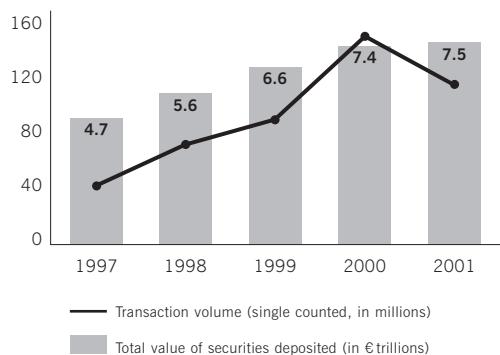
### Securities in safe custody at Clearstream

According to the value deposited



The volume of securities transactions settled via Clearstream declined to 119 million securities, a 22.7 percent decrease from the exceptional figures posted in 2000. At the same time, however, the long-term growth trend remained steady. Taking as a basis the growth curve of the past five years, transaction volume has increased annually by an average of 29 percent since 1997. Clearstream was able to maintain its large customer base, and as of year-end 2001 served more than 2,500 customers in 94 countries, primarily banks and investment companies.

#### Value of certificates deposited rises despite lower transaction volumes



In 2001, Clearstream International posted gross revenues of €980 million, down by 4 percent from the 2000 figure of €1,021 million. Since July 2001, the entire company has been able to lower its expenses thanks to an extensive cost reduction program. Overall costs were 1 percent lower than in 2000, while operating costs decreased by 5 percent. During the year in review, the EBIT from Deutsche Börse's 50 percent stake in Clearstream (including a dividend for the shares in Cedel International) decreased by 8.6 percent to €56.2 million.



#### New functionalities for the clearing and settlement systems

Clearstream is continually expanding and enhancing the functionalities of its clearing and settlement systems.

- In February 2001, Clearstream transferred the business in foreign securities of Clearstream Banking Frankfurt to the Creation settlement platform. As a result, the transaction fee for internal transfers between Clearstream customers, as well as for transfers between Clearstream and Euroclear (bridge transactions), decreased to a flat rate of €2.50. In addition, custody fees for US securities dropped by one basis point.
- “Vestima” is an innovative solution for investment funds processing. Since 2001, its participants have been able to connect to Clearstream Banking either by means of a web browser and the banks’ SWIFT network, or via a new, high-performance direct host-to-host connection. Vestima helps participants to reduce their costs and accelerate the settlement process. Clearstream projects that by the end of 2002, Vestima will be the market leader in the highly competitive Luxembourg investment fund market.
- During the year in review, Clearstream International repositioned its Global Securities Financing and expanded its range of products in the area of securities lending, among other things. With the Frankfurt Automated Borrowing Service (FAB), customers can enjoy more efficient settlement and can take advantage of short-term interest rate spreads. Moreover, German capital investment companies can become more active in the securities lending market with the Segregated Trust Assets Lending program (STAL). Both products increase market liquidity and generate additional earnings potential for lenders and borrowers.

## Systematic internationalization

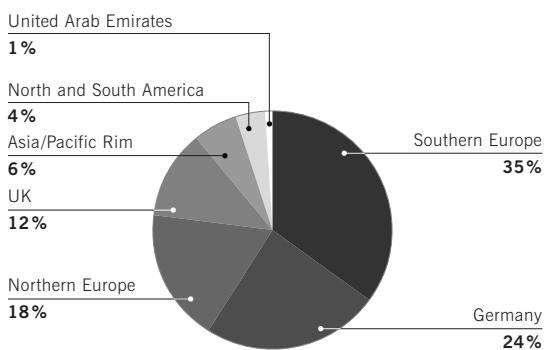
Traditionally, the geographic focus of Clearstream International is on Europe – with almost 75 percent of all customers being located in Europe. However, the company is becoming increasingly active on a global scale.

In March 2001, Clearstream introduced its services to Estonia, Poland, Slovakia and Turkey. Additionally, equity services were introduced to existing links in Australia, New Zealand and Ireland.

In January 2002, newly automated links were established to improve services for customers in South Korea and China. While the Chinese securities market is not yet a significant factor in the company's sales revenue, it has considerable growth potential. Taking into account the new connections, Clearstream now serves a total of ten domestic markets in Asia and the Pacific Rim.

### Clearstream with an international presence

Share of sales revenue in percent



The European market for clearing and settlement, which is still highly fragmented, has only just begun to consolidate. Nonetheless, Clearstream International assumed an important role in the consolidation process during the year in review. Through the acquisition by Deutsche Börse, Clearstream will advance to become the largest player in this market, and the most important engine driving consolidation. Another – albeit smaller – contributing factor was the acquisition of a 7 percent share in Monte Titoli, the Italian central securities depository, in January 2001. Clearstream not only supports the integration and consolidation of the European securities markets, but is also energetically working toward promoting these processes.

### New settlement model for the German securities market

In 2001, Clearstream worked closely with the German Bundesbank and its own customers to develop a new settlement model for the German securities market. The new model accelerates the process chain such that, in the future, every settlement will be final – in other words, the exchange of securities versus cash will be irrevocable. Customers can thus have access to their securities (buyers) or cash (sellers) after every cycle. The model offers a further innovation for all Clearstream customers who have deposited collateral with the German Bundesbank: they can use their margin to finance securities purchases. The first release of the new settlement model, which will introduce immediate overnight processing, is planned for 2003.









**Michael Kuhn (CEO)**  
Chief Executive Officer  
Deutsche Börse Systems AG  
Responsible for  
Coordination, Networks

**Frank Gerstenschläger**  
Responsible for  
Xetra/Eurex

**Ulrich Kastner**  
Responsible for  
Information Products,  
Application Services  
Provider

**Gerhard Leßmann**  
Responsible for  
IT Strategy

## SYSTEMS – MOVING TOWARD LEADERSHIP IN INFORMATION TECHNOLOGY FOR THE SECURITIES INDUSTRY

Information technology is a key success factor when it comes to competing in the international financial markets. Full-service providers are in demand which develop and reliably operate comprehensive solutions with the capacity to handle large transaction volumes. Through the acquisition of entory AG, an IT service company, Deutsche Börse has strengthened its core competence in information technology for all aspects of the securities business, and is now in a position to provide financial service companies and exchanges with the full range of IT services from a single source.

## Dynamic core business

Across the globe, electronic platforms have begun to play a more important role in securities trading – a trend that is reflected in the growth of the Systems Division. In financial 2001, Deutsche Börse Systems AG once again performed strongly in its core business area – software development and the operation of electronic trading systems. For one thing, the division delivered the technology needed to handle the increase in trading volume; secondly, its highly scalable system architecture enabled it to profit both from a sharp decline in unit costs and from the synergies created through the simultaneous operation of several exchanges in its computing centre. In operating Xetra and Eurex, Deutsche Börse Systems powers the world's leading electronic trading systems for the cash and derivatives markets.

## Exceptional increase in earnings in all business areas

The Systems Division posted considerable increases in sales revenue and profit in all four business areas – Solution Business, Application Services, Access Products and Data Center Services (see overview below).

In 2001, the total sales revenue of the Systems Division came to €365.8 million. Business with third parties – i.e. external companies in which Deutsche Börse does not own an interest, or in which it holds a stake of less than 50 percent – accounted for more than one third of total sales revenue, or €136.1 million, which corresponds to an increase of 17.1 percent over the previous year.



External sales revenue of all business areas with a marked increase<sup>1)</sup>

Business area	Offer	Sales revenue 2001 €m	Sales revenue 2000 €m	Change %
<b>Solution Business</b>	Development and rollout of complex IT solutions for all aspects of securities trading	23.8	19.2	+23.8
<b>Application Services</b>	Operation of systems for international exchanges and markets	54.5	44.3	+23.2
<b>Access Products</b>	Components for convenient access to trading systems	32.3	29.2	+10.6
<b>Data Center Services</b>	Operation of relevant applications for third parties	23.9	22.7	+5.4

<sup>1)</sup> Not including sales revenue of Deutsche Börse Systems Inc., own expenses capitalized and other revenue

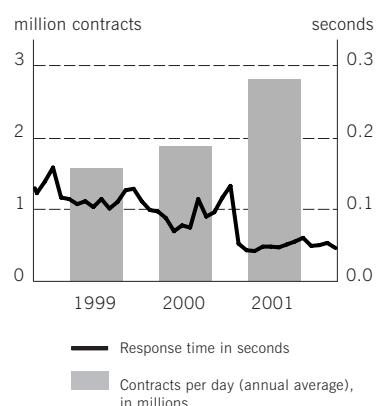
In 2001, the costs incurred by the Systems Division decreased by 7.2 percent in comparison with the previous year, even though output increased and 42 new employees were hired.

Operational costs represent the division's largest cost block. They account for 46.1 percent of total expenses, and include outlays for computing centres, networks and technical customer support. In 2001, operational costs were decreased by 8.5 percent as compared with the previous year, which testifies to:

- the benefits of utilizing optimal network architecture. The costs of purchasing and operating network capacities can be lowered substantially when several exchanges are operated on one physical line and connectivity is enhanced through Internet link-ups.

- the exceptional scalability of the systems, which were able to handle increased trading volumes in Xetra (+27 percent as compared with the previous year) and Eurex (+49 percent) without difficulty. Costs remained constant, while high performance and availability standards were upheld.
- the high synergistic potential that is created when several exchanges are operated by a single provider. The additional expenses incurred through the day-to-day operations of the exchanges that became Systems AG customers in 2000 and 2001 (such as CBOT or the EEX derivatives exchange) were far below the cost of developing and launching a new system.

**Eurex: Faster system response despite strong increase in transactions**



Product development costs account for 29.5 percent of the division's total expenses and include all outlays associated with the development and installation of new software and products. In 2001, these costs also declined by 8.6 percent as compared with the previous year, even though the number of hours spent on consultancy and software development increased by 10.2 percent during the same period. Systems AG was able to economize in this area by taking greater pains to ensure that key positions were filled with the most suitable staff members, and by effectively applying the experience it had gained in the area of project management. As a result, the division was less dependent on individual external consultants, and was thus able to significantly cut costs for external resources.

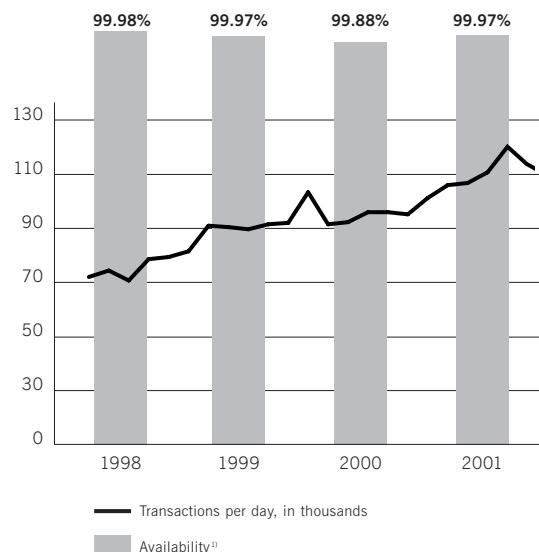
The division's success in economizing and creating synergies in 2001 is reflected in its income statement. EBIT came to €93.4 million in 2001, which represents an increase of 26.6 percent over 2000.

#### **Solution Business: Further enhancing IT expertise**

The core competence of Deutsche Börse Systems AG consists of software development and the operation of exchange systems. In developing Xetra and Eurex, the Systems Division has created the world's leading electronic exchange trading systems. The division pools its expertise in Solution Business, where it develops complex IT solutions that cover the entire process chain for electronic trading – from order routing (the forwarding of securities orders from participants' in-house systems to the trading platforms) to order matching, right up to clearing and settlement, and the simultaneous distribution of relevant market information.

In 2001, Solution Business focused on further optimizing Xetra and Eurex and augmenting their functions. As a result, the systems consistently delivered a high level of availability and performance, easily handling the strong upsurge in trading volume that has occurred in recent years.

#### **Xetra: High system availability despite substantial increase in trading volume**



<sup>1)</sup> Availability right up to the participants' interface, i.e. including all host applications, as well as availability of the network connection up to the customers' hardware, and the participants' server software

Through the acquisition of entory AG (see box on the following page), Deutsche Börse Systems AG will continue to expand its product portfolio for all aspects of the securities business. In the future, the division will not only provide development and consulting services for exchanges and the companies that operate them; in addition, it plans to offer a range of services for banks, insurance companies, securities traders and settlement organizations.



### **entory AG: Expansion through acquisition**

In 2001, Deutsche Börse established the preconditions for the further growth of its Systems Division with the acquisition of entory AG, an IT service provider specializing in finance. In acquiring entory AG, the division has gained

- around 400 employees with highly specialized knowledge and skills, both in finance and in information technology
- a partner that focuses on developing comprehensive IT solutions for banks, insurance companies and other financial service providers, and in doing so develops standardized modular software components
- a strong sales team with established customer relationships.

In 2001, entory AG posted sales revenue of €99 million, which represents an increase of 25 percent over the previous year. With the acquisition of entory AG, Deutsche Börse Systems AG has considerably enhanced its value-added chain in the area of information technology for all aspects of the securities business. The stock exchange know-how contributed by the Systems Division is the perfect complement to entory's IT expertise in the front and back office. In the future, Deutsche Börse will function as a one-stop provider for the design, rollout and operation of innovative solutions for the entire financial sector.

By acquiring entory AG, Deutsche Börse Group has taken a significant step toward becoming the market leader in implementing and operating component-based IT solutions for the financial sector.



### **Application Services: Information technology for 19 exchanges worldwide**

Application Services is in charge of operating the Xetra and Eurex trading systems for international exchanges. At present, the Systems Division supports the information technology for 19 exchanges worldwide. Its best-known reference customers include the Chicago Board of Trade (CBOT), the Irish Stock Exchange (ISE) and Wiener Börse (the Vienna Stock Exchange). The derivatives market of the EEX energy exchange and the Eurex Repo securities lending market also became Application Services customers in 2001.



The simultaneous operation of several trading and exchange platforms enables the Systems Division to create synergies and reap cost advantages. Consequently, it can offer its services to market and exchange operators at costs far below those involved in proprietary operations, while at the same time guaranteeing high performance standards. Deutsche Börse's international participant network comprises more than 1,200 Xetra and Eurex installations in more than 20 countries. This gives exchanges joining the network the opportunity to expand their customer base, which will in turn substantially improve the liquidity of their markets.

The transparency of market and price information is another factor that contributes to enhanced market liquidity. If the systems are to provide transparency, they must distribute an enormous volume of price changes (broadcasts) to all installations efficiently and swiftly. In 2001, the volume of broadcasts rose by 55 percent in Xetra and by 116 percent in Eurex. The fact that the systems were able to handle these larger volumes without difficulty in effect set the stage for the number of transactions and contracts executed to increase by 27 percent and 49 percent, respectively.

#### Deutsche Börse Systems AG operates 19 exchanges worldwide

Exchanges	Type of market	Launch	Participants	Countries
<b>Eurex</b>	Derivatives market	1/90	427	17
<b>Kontro<sup>1)</sup></b>	Spot market	6/92	500	4
<b>Frankfurt Stock Exchange (Xetra)</b>	Spot market	11/97	413	17
<b>Helsinki Exchanges</b>	Derivatives market	9/99	427	17
<b>Vienna Stock Exchange</b>	Spot market	1/99	66	4
<b>Irish Stock Exchange</b>	Spot market	5/00	14	2
<b>a/c/e</b>	Derivatives market	8/00	110	5
<b>Eurex Bonds</b>	Spot market	10/00	23	4
<b>NEWEX</b>	Spot market	11/00	413	17
<b>EEX</b>	Spot and derivatives market	+3/01	60	8
<b>Eurex Repo</b>	Securities lending market	7/01	13	2

<sup>1)</sup> Electronic, broker-supported trading system for floor trading at the Berlin, Bremen, Dusseldorf, Frankfurt, Hamburg, Hanover, Munich and Stuttgart Stock Exchanges



### **Access Products and Data Center Services: Strong growth projected**

The Systems Division provides services not only to exchanges, but to participants as well. It facilitates access to trading and exchange systems for market and exchange participants with a full range of custom-tailored software solutions called access products. The division either provides standard components, or adapts these to customer specifications to ensure smooth connectivity between Deutsche Börse's fully computerized trading systems and the customer's infrastructure.

Data Center Services, whose products round out the services offered by the Systems Division, provides computer centre services to a variety of customers, including financial service companies. As a neutral provider, it guarantees that sensitive financial information will be handled in a strictly confidential and secure manner.

In 2001, Access Products and Data Center Services still made a relatively minor contribution to the sales revenue of the Systems Division. In the future, the division will be able to build on the established customer relations of entory AG and offer its services to new customer groups such as banks and insurance companies. Both business areas are thus expected to grow substantially in the coming years.



### **On the way to becoming a leading IT service provider**

Deutsche Börse Systems AG has already become the world's leading systems house for the development and operation of high-performance, high-availability IT applications for the securities business. With the acquisition of entory AG, Deutsche Börse has created the ideal preconditions for further growth in this area, and in the future will function as a one-stop provider for the design, installation and operation of innovative solutions for the entire financial sector. Consequently, Deutsche Börse has come one step closer to turning its Systems Division into the leading European IT service provider for the financial sector.



**Security as a core area of expertise:  
Systems network architecture protects  
against failure**

In the event of a catastrophe, floor trading would grind to a halt. By contrast, electronic "virtual" marketplaces, which comprise a network that exists independent of geographic location, can maintain trading activity under almost any circumstances.

When it comes to operating failsafe and highly available exchange and trading systems, Deutsche Börse Systems can look back on many years of experience and an impressive track record. It operates its computer networks in physically separate, high-security computing centres. Its global data communications network is fully redundant, relying on a number of independent providers. The same applies to the technical infrastructure of Xetra and Eurex, in which all servers, routers or data lines have at least one backup. Should one of these system components fail, the backup will assume its function without interruption. In addition, participants that wish to remain unaffected by the potential network failure of individual telecommunications companies can be linked up via the lines of two different providers (a so-called dual rail). On average, the end-to-end availability of these connections, right up to the participant interface is more than 99.99 percent; for dual-rail connections, it is as high as 99.9999 percent – exceptional availability for an IT system.

Deutsche Börse links participants across the globe by maintaining access points to its networks in all relevant financial centres such as New York, Chicago, London, Paris, Amsterdam, Zurich, Milan, Helsinki, Madrid and Frankfurt.

All systems, as well as the global network, are monitored around the clock so that if individual components fail, staff members can respond quickly to prevent interruptions. The rolling desk system is used so that the division's two operation centres (located in Frankfurt and Chicago) can be immediately and automatically notified of any malfunctions. For example, problems that occur at night European time are reported to Chicago, where they are analysed and rectified. Thus, when trading resumes the following morning, everything is once again up and running smoothly, with double safeguards in place.

Not all customers demand the same high standards with respect to the performance and availability of their connection. Deutsche Börse Systems caters to the individual needs of its customers by offering different levels of connectivity, ranging from highest availability (two standing lines via dual rail) to lowest cost (connection via Internet), as well as combinations in between. Of course, the same security standards apply without exception to all connections, including the various Internet options.

Thanks to their redundant system architecture and high availability, the Xetra and Eurex applications operated by Deutsche Börse Systems have become established as the highest security standard in the market.







# REPORT OF THE SUPERVISORY BOARD

In the course of four meetings during 2001, the Executive Board presented the Supervisory Board with detailed information on the state of the Company, as well as on corporate policy issues of both immediate and long-term significance. Moreover, we regularly consulted on specific issues that were documented in written reports. In addition to addressing ongoing business developments and important individual business matters, our discussions focused above all on the strategic impact of the Group's international alignment. The Supervisory Board thoroughly examined and voted on all proposals made by the Executive Board which required the approval of the Supervisory Board, as stipulated by law or the Articles of Association. Moreover, the Chairman of the Supervisory Board met with the CEO of Deutsche Börse on a regular basis to discuss current issues.

Moreover, the Executive Board presented the Supervisory Board with an assessment of Neuer Markt's standing in the market, as seen from an entrepreneurial point of view, and informed the Supervisory Board of confidence-building measures that had been introduced in this context. The members of the Supervisory Board also gave attention to the further development of the clearing and settlement landscape, as well as the strategic alignment of Deutsche Börse Systems AG, which culminated in the acquisition of entory AG. Finally, the Supervisory Board gave its approval to broaden the Company's financing options through the introduction of a commercial paper program.

As a result of an amendment to the Articles of Association, Manfred Zaß was elected as the sole deputy chairman of the Supervisory Board for the current term of office, with effect from 19 March 2001.



In the course of an Extraordinary General Meeting held on 18 January 2001, shareholders approved the IPO at the recommendation of the Supervisory Board. The results of the IPO were presented to the Supervisory Board after the Company went public on 5 February 2001. In connection with the listing of Deutsche Börse shares, members of the Supervisory Board agreed to comply with the disclosure requirements stipulated for Neuer Markt companies regarding any and all of their own transactions involving the shares, or derivatives on the shares, of Deutsche Börse AG.

During the five meetings of the Supervisory Board's Strategy Committee, attention was given to the strategic alignment and development of the Information Products and Systems Divisions. Furthermore, the Executive Board presented Deutsche Börse Group's strategic planning for the coming years. The Committee was also apprised of the standing of the central counterparty and of the European derivatives market. The status of the clearing and settlement business in Europe was discussed thoroughly.

The Finance Committee convened three times during the year in review to examine carefully the Group's financial and business situation. Committee members submitted their recommendations with respect to budget planning for 2002.

During the year under review, the Supervisory Board's Committee for IT issues focused its attention primarily on the systems technology involved in extending trading hours and establishing a central counterparty for equity trading. Committee members were also informed with regard to the strategic options of Deutsche Börse Systems AG.

The Staff Committee, which met once during 2001, determined the emoluments for members of the Executive Board.

The Annual General Meeting appointed KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Frankfurt/Main, as auditors. The annual accounts, the annual financial statements and the management report of Deutsche Börse AG, as well as the consolidated annual financial statements and the group management report, were duly examined by the auditors, who issued unqualified audit opinions on them.

KPMG took part in the Supervisory Board meetings and those of the Finance Committee which discussed the annual financial statements, and reported on the key findings of the audit. In particular, the auditors elaborated on the asset, financial, and earnings positions of both the Company and the Group. KPMG's audit reports for Deutsche Börse AG and the Group have been presented to the Supervisory Board for scrutiny. The Supervisory Board concurs with the findings of the audit.

Moreover, the Supervisory Board has duly examined the annual financial statements for the year ending 31 December 2001, the management report, and the proposal on the appropriation of the unappropriated surplus, as well as the Group annual financial statements and group management report. No objections were raised to any of these.

The Supervisory Board hereby approves the annual financial statements prepared by the Executive Board. The financial statements are thus considered adopted. We concur with the proposal on the appropriation of the unappropriated surplus.

The Supervisory Board thanks the Executive Board, the staff council, and all staff members for their efforts during 2001.

Frankfurt/Main, 27 March 2002

On behalf of the Supervisory Board:



Dr. Rolf-E. Breuer  
Chairman

# GROUP MANAGEMENT REPORT AND ANNUAL FINANCIAL STATEMENTS (IAS) OF DEUTSCHE BÖRSE AG

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## **Deutsche Börse AG Annual Financial Statements in Accordance with IAS**

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# GROUP MANAGEMENT REPORT

## Business review 2001

2001 was marked by slowing economic activity and early indications that both Europe and the USA were sliding into recession. Share prices fell on most international equity markets, as did the market capitalization of listed companies, a scenario that also impacted the cash markets operated by Deutsche Börse. Share prices were highly volatile, and investors were generally nervous about the direction prices would take. This in turn boosted demand for derivatives, and trading volumes on the organized derivatives markets recorded corresponding growth.

Thanks to its business model, Deutsche Börse Group was well prepared to meet this shift in demand. The diversification of its business portfolio allows it to generate revenues from cash and derivatives markets, settlement services, as well as IT and information services. This enabled Deutsche Börse to record Group-wide revenue growth of 17.2 percent to €760.3 million despite the tough capital market environment (2000: €648.9 million excluding net licence fees collected on behalf of the German regional exchanges amounting to €53.4 million; from 2001, the licence fees are no longer recorded as sales revenue).

### Eurex segment

2001 saw Eurex further extending its position as the world's largest derivatives market. 674.2 million traded contracts (2000: 454.1 million) put it well ahead of its international competitors. Eurex achieved market shares in excess of 90 percent with certain contracts, including the European index derivatives, thereby further growing its lead over the competition.

### Contracts on international derivatives exchanges

	2001 million	2000 million
Eurex	674	454
CME	412	231
Euronext <sup>1)</sup>	398	326
CBOE	324	326
CBOT	260	234
Liffe	216	131

<sup>1)</sup> Joint venture of the Paris, Brussels and Amsterdam derivatives exchanges; the contracts traded on Euronext in Paris are considerably smaller than those of the other exchanges

Euro Repo trading was launched on Eurex on 16 July 2001, offering participants a single-source, end-to-end value chain for euro-denominated repos, from trading to clearing and settlement. Direct links to Clearstream and Euroclear allow instructions to be transmitted automatically to the relevant settlement organization. Compared with telephone trading, integrated clearing and settlement is more reliable, faster and more cost-effective. This represents a further step toward fully automating European money market trading.

The restructuring of Eurex Bonds GmbH was completed in October 2001. This company is now more tightly integrated with Eurex Frankfurt AG. There was also an €8.0 million capital increase. New products and a new pricing model are currently under development.

The derivatives market of the European Energy Exchange AG (EEX) opened for business on 1 March 2001. During the course of 2001, the number of participants on the spot and derivatives market rose from 32 in January to 60 – from eight countries – at the end of December. This enabled EEX to continue the positive turnover growth path on its integrated spot and derivatives market in its second year.

### Xetra segment

Despite the tough conditions prevailing on the equity markets, the number of electronic transactions in the Xetra segment grew by a further 27.4 percent to 49.7 million orders (2000: 39.0 million). However, trading volumes (based on Xontro contract notes) on the FWB Frankfurter Wertpapierbörsen (the Frankfurt Stock Exchange) remained below 2000's all-time highs.

#### Xetra transactions and contract notes in floor trading (Xontro) 2001

	Xetra Transactions	Xontro Contract notes
January	4,725,044	5,970,707
February	3,504,942	4,345,024
March	4,261,462	4,651,605
April	3,785,538	3,745,351
May	3,683,788	4,068,615
June	3,433,974	3,458,649
July	3,725,566	3,284,284
August	3,919,976	2,964,630
September	4,992,134	3,531,734
October	5,099,486	3,757,560
November	5,091,566	4,012,438
December	3,495,686	2,799,558

Last year, 86 percent of the total German equities trading volume was executed through the Xetra system. Around 95 percent of German trading in DAX stocks is now traded on the electronic trading platform.

The volume traded by foreign participants linked to the global Xetra network has risen steadily. The number of trades entered by foreign intermediaries rose to 20 percent of the total system trading volume at the end of the year (2000: 13 percent). Xetra is the world's leading trading system, with 413 participants from 17 countries and a total of 3,393 traders.

#### Xetra transactions

	1999 million	2000 million	2001 million
German participants	14.5	33.8	39.6
International participants	1.3	5.2	10.1
<b>Total transactions</b>	<b>15.8</b>	<b>39.0</b>	<b>49.7</b>

Deutsche Börse AG launched its new US segment "Xetra US Stars" on 24 September 2001. Two index funds are traded on Xetra, as well as around 200 of the most liquid US equities. Trading in ten euro-denominated options on US equities commenced at the same time on Eurex. Trades are settled by Clearstream. The US segment is the first component in Deutsche Börse AG's Global Markets Concept (GMC). The GMC was extended further with the launch of the Dutch segment "Xetra Dutch Stars" on 12 November 2001. This new segment is composed of all seven Dutch stocks in the Dow Jones Euro STOXX 50 index. Eurex has been offering options on Dutch equities since March 2000.

To extend its services offering for issuers, Deutsche Börse AG launched an Internet-based service (the Listing Center) in early October 2001. It offers companies, IPO advisers and consultants comprehensive services for IPOs and life as a listed company.

NEWEX Börse AG, which operates the market for Central and Eastern European shares jointly with Wiener Börse AG, implemented a liquidity initiative in 2001. As the first step, it assumed responsibility for operating the Newex OTC segment on the Frankfurt Stock Exchange effective 8 June 2001. Most Newex shares have been traded on the Frankfurt Xetra backend since 6 August 2001, allowing all Xetra participants to trade these shares directly. Since 2 November 2001, NEWEX has also offered continuous trading, supported by market makers, for certain shares.

### **Information Products segment**

Last year, Information Products (IP) increased the number of its customers by 45 percent over the prior-year period. Together with 14 vendors, six banks now number among the top 20 end customers in terms of revenue.

IP also comprehensively upgraded its IT systems in the year under review. Since 30 June 2001, IP customers have been exclusively supplied with information through CEF (Consolidated Exchange Feed), Deutsche Börse AG's new dissemination system for capital market information. CEF replaces both the TPF (Ticker Plant Frankfurt) system for Frankfurt Stock Exchange data, and the FDD (Financial Data Disseminator) system, which formerly distributed Eurex prices.

Together with key participants in the international bond trading market, Deutsche Börse AG established iBoxx Ltd. on 1 August 2001 with the objective of offering the leading index family for the European fixed-income market. The market participants provide the prices, and IP supplies the technical infrastructure, continuously monitors the quality of the computed prices and indices, and disseminates the data. iBoxx Ltd. specifies the index rules and is responsible for marketing the products.

### **Systems segment**

The acquisition of IT service provider entory at the end of December 2001 has helped Deutsche Börse drive forward the growth strategy of its systems supplier, Deutsche Börse Systems, for component-based software solutions for the financial services industry. entory's IT expertise in front- and back-office systems is an ideal complement for the Systems segment value chain, which is focused on the provision of information technology for securities trading and settlement. Building on the specialized know-how of the around 400 staff who have now joined the Systems Division, plus a powerful sales team with established customer relationships, Deutsche Börse will in future be able to offer single-source design, implementation and operation of innovative solutions for the entire financial services industry.

### **Settlement segment**

In securities markets with large trading volumes – such as the European capital markets – the demand for the physical safekeeping of certificates and for trade settlement and clearing is strong. At 31 December 2001, Clearstream International provided custodian services for around 150,000 different certificates in its vaults. The total value of securities deposited in Luxembourg and Frankfurt at year-end was around €7.5 trillion (2000: €7.4 trillion). In February 2001, Clearstream transferred the international business of Clearstream Banking Frankfurt to the Creation settlement platform to improve the services available to settlement customers. Clearstream International was awarded a full banking licence for Germany in February 2001.

## Deutsche Börse shares

The outstanding event of last year was Deutsche Börse AG's IPO on 5 February 2001. The Extraordinary General Meeting convened on 18 January 2001 had almost unanimously approved the corresponding proposal by the Supervisory Board and the Executive Board. The issue price of €335 was at the top end of the bookbuilding range. The issue was 23 times oversubscribed. This was a tremendous success, also in comparison to IPOs by other European stock exchanges in 2001. Deutsche Börse AG held its first Annual General Meeting as a listed company on 3 May 2001, which was attended by around 1,000 shareholders or 65 percent of the voting share capital.

2001 saw Deutsche Börse AG continuing the success achieved in 2000 and thereby underpinning the extremely positive performance of its shares. Following allotment at €335, the share started trading at €362 on 5 February in the Amtlicher Handel (Official Trading) segment of the Frankfurt Stock Exchange. Following a 10-for-1 stock split in June, the share price closed the year at €43.21, a gain of 19.4 percent. Deutsche Börse AG shares substantially outperformed the market as a whole, yielding 20.2 percent (including dividend payments).

The MDAX lost 10 percent over the same period, and the Dow Jones STOXX 600 Technology (EUR) index fell by 37 percent.

Deutsche Börse was included in the MDAX effective 18 June. Thanks to the company's growth and the consequent rise in its share price, Deutsche Börse is in the top ten of the 70 MDAX companies in terms of market capitalization and trading volume. At 31 December 2001, Deutsche Börse's market capitalization was €4.4 billion.

## Deutsche Börse's share price in 2001<sup>1)</sup>

	Q1	Q2	Q3	Q4
High	39.10	43.45	41.80	44.93
Low	29.77	30.50	30.00	36.08
Close	31.80	41.70	38.72	43.21

<sup>1)</sup> Adjusted for the 10-for-1 stock split implemented on 1 June 2001

Deutsche Börse is committed to the principles of Corporate Governance for ensuring responsible management and control of the company. Core elements of a Corporate Governance policy include the safeguarding of shareholder rights and ensuring transparency to best serve the interests of the capital markets.

With this in mind, Deutsche Börse AG implemented a number of measures last year to demonstrate its commitment to this policy. It recognized the German Takeover Code, and adopted the Neuer Markt Rules and Regulations on directors' dealings and structured quarterly reports. Deutsche Börse AG will continue to develop further and implement Corporate Governance principles in future, and supports their codification in Germany.

## Research and development

Last year, Deutsche Börse again invested heavily in its trading systems, as well as the global network that links German and international participants to the 19 markets operated in Frankfurt. Expenses related almost exclusively to product development, and only a very small proportion was spent on pure research.

New products on the Xetra and Eurex trading systems are launched with new system releases. These releases combine a variety of innovations and make them available to market participants on a single date. The innovations are the result of a number of product developments, most of which have been designed and tested as part of defined projects.

The decision whether to provide resources to develop new functions and products – and the level of resources to be allocated – is based on a business case analysis. The discounted future cash flows reflecting the true opportunity costs of the capital employed are compared with the actual costs. This analysis helps to focus the development budget only on those projects whose future revenues will increase the value of the company.

A large part of Deutsche Börse's employees were involved in the development of new functions and products for the Xetra and Eurex trading systems during the course of 2001. The following table presents a detailed breakdown:

#### Strategic projects of Deutsche Börse

Segment	Project	Status
Xetra, Eurex	Equity Central Counterparty (ECCP)	Work in progress
Xetra	Release 6.0	Launched in April 2001
Eurex	Release 5.0	Launched in February 2002
Xetra	Global Markets Concept (GMC)	US Stars: launched in September 2001 Dutch Stars: launched in November 2001
IP	Consolidated Exchange Feed (CEF)	Launched in May 2001
IP	StatistiX	Launched in April 2001

#### Investments per segment

	2001 €m	2000 €m
Xetra	28.5	31.8
Eurex	39.5	3.3
Information Products	14.7	27.3
XLaunch	0.1	0
Systems	19.7	45.7
Corporate Services	5.5	20.9
<b>Total</b>	<b>108.0</b>	<b>129.0</b>

As the example of the Eurex segment shows, product innovations materially affect the growth of both the markets and the resulting revenues: at Eurex, the products that have been introduced since 1998 already account for a good third of the volume of traded contracts.

#### Employees

Deutsche Börse Group employed a total of 1,123 permanent salaried staff at 31 December 2001 (31 December 2000: 1,001); this figure does not include the entry employees who joined the Group at the end of the year. The number of employees thus rose by 12.2 percent over the previous year. 198 new employees were recruited. The fluctuation rate came to approximately 7 percent (2000: 10 percent).

Deutsche Börse has a young, well qualified international team. At 31 December 2001, the Group employed staff from 35 countries.

Deutsche Börse has plans to continue recruiting additional qualified staff in the coming year using targeted recruitment activities. In the medium term, a particular objective is to expand the labor-intensive service and support functions for users of Deutsche Börse systems.

## Results of operations

In the year under review, Deutsche Börse's sales revenue rose by 17.2 percent year-on-year to €760.3 million (2000: €648.9 million excluding net licence fees, which are no longer recorded as sales revenue, from 2001). This increase was driven in particular by the strong growth of the Eurex derivatives market. The sales revenue of the individual segments is presented below.

### Sales revenue per segment

	2001 €m	2000 €m	Change %
Xetra	243.1	277.8	-12.5
Eurex	268.8	160.4	67.6
Information Products	109.9	82.5	33.2
Xlaunch	2.4	0	-
Systems	136.1	116.2 <sup>1)</sup>	17.1
Internal revenue Systems	229.7	243.7	-5.7

<sup>1)</sup> Excluding retained licence fees

Deutsche Börse's return on equity fell to 15.9 percent last year (2000: 40.4 percent) because of the funds obtained from the IPO. The return ratios presented in the following table also include the income from the 50 percent interest in Clearstream International, whose sales revenue is not consolidated in Deutsche Börse's financial statements.

### Return ratios

	2001 €m	2000 €m
DVFA/SG earnings	203.7	142.9
Equity (average)	1,282.7	353.3
Total equity and liabilities (average) <sup>1)</sup>	1,668.7	761.7
Interest on borrowings	7.3	6.1
Sales revenue	760.3	648.9 <sup>2)</sup>
	2001 %	2000 %
Return on equity <sup>3)</sup>	15.9	40.4
Return on assets <sup>3)</sup>	12.6	29.7
EBIT/Sales revenue	36.6	33.4 <sup>2)</sup>

<sup>1)</sup> Excluding cash deposits by Eurex clearing members  
<sup>2)</sup> Excluding net licence fees collected on behalf of the regional stock exchanges  
<sup>3)</sup> Based on DVFA/SG earnings

### Xetra

88 percent of the Xetra revenue amounting to €243.1 million (down 12.5 percent year-on-year) in 2001 was attributable to trading fees. These depend primarily on the number of electronic transactions, and to a lesser extent on the transaction volume, as well as on the number of contract notes generated in Frankfurt floor trading.

### Eurex

Driven by the record volume of 674.2 million contracts (2000: 454.1 million), Eurex' sales revenue of €268.8 million was up 67.6 percent over the prior-year period (2000: €160.4 million). The transaction volume for the most-traded product, the Bund future, rose by 18 percent year-on-year to 178 million contracts. The index products were particularly successful, with the transaction volume growing by 74 percent.

## Information Products

The investments in systems in previous periods were reflected in the revenue of the Information Products Division, which grew by 33.2 percent. IP recorded total sales revenue at 31 December 2001 of €109.9 million (2000: €82.5 million).

## Systems

Systems' sales revenue relates only to revenue generated with companies that are not subsidiaries and revenue generated with associates (equity interest of up to 50 percent) of Deutsche Börse (external customers). Services provided to Deutsche Börse Group companies are eliminated during preparation of the consolidated financial statements. Revenues generated with external customers rose by 17.1 percent to €136.1 million (2000: €116.2 million, excluding retained licence fees). Last year, the Systems segment operated the systems and the network for 19 securities and derivatives markets worldwide.

## Earnings before interest and taxes

At €278.1 million, earnings before interest and taxes (EBIT) were up 28.5 percent year-on-year (2000: €216.5 million). Most of this growth was generated by the Eurex and Systems segments. The following table presents a breakdown of EBIT by segments:

### EBIT per segment

	2001 €m	2000 €m	Change %
Xetra	38.4	82.5	-53.5
Eurex	99.3	10.4	854.8
Information Products	17.0	6.8	150.0
Xlaunch	-5.9	-2.4	-145.8
Systems	93.4	73.8	26.6
Corporate Services	-20.3	-16.1	-26.1
Settlement <sup>1)</sup>	56.2	61.5	-8.6
<b>Total EBIT</b>	<b>278.1</b>	<b>216.5<sup>2)</sup></b>	<b>28.5</b>

<sup>1)</sup> Including earnings from the 50 percent interest in Clearstream International and a dividend for the interest in Cedel International

<sup>2)</sup> The definition of EBIT has been extended since the beginning of 2001 to include write-downs on long-term investments. EBIT for 2000 has been restated accordingly from the original €226.2 million to €216.5 million.

## Financial position

In conjunction with the IPO, Deutsche Börse placed 2.936 million new shares in February 2001 from a capital increase at €335 each. This increased cash reserves by the net proceeds of the issue amounting to €946.8 million. The funds were invested at market rates at a number of commercial banks in secure money market and near-money market instruments with maturities of less than six months.

This inflow of cash funds, which were still almost fully available at 31 December 2001, resulted in a considerable improvement in the balance sheet ratios compared with the prior-year period. We expect these ratios to have fallen by the end of 2002 as these funds are utilized.

In addition to the IPO, net cash from operating activities of €248.8 million made a substantial contribution to the strong increase in cash flow.

Capital spending in 2001 amounted to €108.0 million (2000: €129.0 million). This figure includes the cost of internally generated software of €62.6 million, as required by IAS 38. Almost all property, plant and equipment, and intangible assets are reduced by straight-line depreciation or amortization. The total depreciation and amortization expense in 2001 amounted to €83.3 million (2000: €83.1 million), including €2.7 million for write-downs.

On 17 December, Deutsche Börse acquired 52 percent of the shares of entory AG, Karlsbad. This resulted in a net outflow in 2001 of €48.9 million for the acquisition of the shares, plus €1.6 million for incidental acquisition costs. Further cash payments of between €45.6 million and €61.6 million – contingent on entory's performance in 2002 and 2003 – will be made. entory AG has been fully consolidated in Deutsche Börse's balance sheet as at 31 December 2001, while entory's income and expenses will be consolidated in the income statement as from 1 January 2002.

#### Balance sheet ratios excluding entory Group

	2001	2000
Quick ratio (%) <sup>1)</sup>	372.4	27.4
Current ratio (%) <sup>2)</sup>	430.5	86.4
Return on equity (%)	15.9	40.4
Cash flow (€m)		
from operating activities	248.8	101.5
from investing activities	-160.7	-252.3
from financing activities	921.0	41.3
Total	1,009.1	-109.5
Dividend distribution for previous year (€m)	30.8	58.7
Number of shares <sup>3)</sup>	102,760,000	73,400,000

<sup>1)</sup> Cash/Current liabilities

<sup>2)</sup> (Cash + Current receivables)/Current liabilities

<sup>3)</sup> Adjusted for the 10-for-1 stock split on 1 June 2001

## Risk report

Deutsche Börse reports on operating environment risks, industry and information technology risks, as well as financial and other risks. A risk management function has been established.

### **Operating environment risks, industry risks**

Deutsche Börse currently operates systems for 19 cash and derivatives markets. Its commercial success is thus contingent upon the development of activities on the capital markets. In the Xetra, Eurex and Settlement segments, sales revenues are directly linked to activities on the capital markets run by Deutsche Börse. The sales revenues of the Information Products and Systems segments are indirectly linked. Trading and settlement-related revenue in these segments may also decline if liquidity migrates to other financial marketplaces, or if a prolonged bear market results in a sharp downturn in trading activities on all markets.

Market structures and their business environment are also constrained by the regulatory environment. Any changes in the regulatory environment may adversely affect the business, financial and earnings position of Deutsche Börse.

### **Information technology risks**

Information technology risks arise from the operation of Deutsche Börse Group's computer-based markets, and from the operation of applications for customers by Deutsche Börse Systems.

Both Eurex, the world's largest derivatives exchange, and Xetra, the cash market system through which (among other things) 95 percent of the DAX equity trading volume is executed, are fully computerized. The other exchanges operated by Deutsche Börse Systems (CBOT, Vienna Stock Exchange, Helsinki Exchanges, Irish Stock Exchange, etc.), ECNs (Eurex Bonds, Eurex Repo, etc.) and the clearing and settlement systems of Clearstream Banking AG, Frankfurt, are computerized. This requires analysis of the information technology risks – i.e. the availability risk, integrity risk and confidentiality risk. These risks may entail obligations to pay compensation, as well as revenue shortfalls.

In addition to these direct adverse effects, system problems may also have indirect effects through loss of reputation and the resulting exodus of customers and their business.

#### (a) Availability risk

Availability risk arises because the systems required for smooth operations must be continuously available. However, this availability may be impaired by hardware failure, operator error or the physical destruction of the data centre facilities.

The overall systems availability of Deutsche Börse Group's host systems was again over 99.9 percent in 2001, and thus complied with the high standards specified for security and reliability. Certain systems even exceeded the very high level achieved in previous years, with an availability of 99.99 percent.

Deutsche Börse Systems AG, the systems provider of Deutsche Börse Group, protects itself from availability risk through the redundant design of all its systems. Nevertheless, it was still affected by the terrible terrorist attack on New York on 11 September 2001. Because of their international customer base, the access points for the Eurex and a/c/e trading networks are located at major global financial centres. As with all other access points, the New York access point has a redundant configuration and is split into two sections that are located in two different parts of the city. The backbone which connected one section with the network was directly affected by the terrorist attack. Even though the public power supply had been cut off, the redundant second section located elsewhere in the Financial District continued working using an emergency generator. Because of the large no-go area, however, it was impossible to maintain the emergency generator, which overheated and therefore failed after two days. As the access point was restored after being off-line for one day, those participants with functioning networks and connections to the two sections of the access point experienced only a brief interruption in service.

#### (b) Integrity risk

The risk of processing errors, data loss or data storage errors due to software errors (integrity risk) did not result in more than brief interruptions in market trading or settlement processes for participants in 2001. The impact of software errors is minimized by comprehensive testing and simulations in the run-up to each release, as well as by 24x7 availability of IT specialists.

#### (c) Confidentiality risk

Confidentiality risk incorporates the risk of data interception and penetration of Deutsche Börse Systems AG's systems environment. Deutsche Börse Group uses a special network, firewall and authentication architecture to thwart potential attempts to obtain unauthorized access to the data in its systems. For example, Internet-based access to the Xetra and Eurex trading systems uses a state-of-the-art smartcard-based architecture for logon, encryption and digital security. Deutsche Börse Systems AG also invests permanently and heavily to ring-fence its network and systems: for instance, the systems are examined regularly for weak points by specialist external agencies.

### **Financial risks**

#### (a) Credit risks

Investing cash and cash equivalents entails a risk that a debtor will not repay the funds made available to it. Deutsche Börse Group's debtors are prime-rated banks (direct), governments, and public- and private-sector enterprises (indirect in the case of investments via mutual funds).

#### (b) Liquidity risks

Sufficient liquidity must be available at all times to meet Deutsche Börse Group's payment obligations. Eurex Clearing AG bears the largest liquidity risk, as the cash deposits by clearing members (the variation margins for settling daily transactions) and the premium payments, which may be as much as several hundred million euros, are due at sight. The business operations of Group companies result in timing and monetary differences, especially on an intra-month basis.

(c) Risk from operating a central counterparty in the Eurex derivatives market

Material risks may arise from Eurex Clearing AG's function as the central counterparty for all trades executed on Eurex. Counterparty risk denotes the risk that one of the two parties involved in a transaction will default. However, Eurex Clearing's counterparties are exclusively Eurex market participants who are also approved clearing members. The risk that one of these clearing members will default is covered by the margins deposited by clearing members in the form of cash or securities. These margins ensure that all positions of a defaulting clearing member will be closed out on the following market day, assuming the 99 percent worst-case movement in prices. If these margins are insufficient in the event that a counterparty defaults, Eurex Clearing could have recourse to the clearing fund established for this purpose, to the reserves of Eurex Clearing earmarked for such cases, to equity, and finally to the comfort letters issued by Deutsche Börse and SWX Swiss Exchange.

Simulations have established that even in an exceptional crisis, these collateral systems would be sufficient to assume in full the obligations from trading activities. No case of default by a clearing member has been recorded in the history of Eurex.

**Other risks**

(a) Risks from participant support and market supervision

Although the trading and settlement processes are automated as far as possible and come close to the ideal of straight-through processing, manual intervention in market and system management is necessary in special cases. An example of such an instance is dealing with mistrades, where trades have resulted from orders that participants have accidentally entered incorrectly into the trading system. The risk here is that of a difference in opinion between Eurex and the participants affected about the substance of this trade, or the way in which it is dealt with. However, such conflicts of opinion are extremely rare, and only account for less than one in a thousand mistrades each year. In those cases where claims were asserted against Eurex, the claims were not substantiated. There was no obligation on Eurex to pay compensation, so none was paid.

In the case of the mistrade on 20 November 2001, when futures and options trades on the DAX and the Dow Jones Euro STOXX 50 indices were cancelled following an input error at a Eurex participant, a number of participants asserted claims for compensation of losses. Eurex believes that these claims are also groundless.

(b) Dependence on key accounts

Deutsche Börse provides its services to a total of 1,800 customers. In the Xetra and Eurex segments, a substantial proportion of trading volumes is accounted for by a few key accounts. Deutsche Börse would expect to suffer revenue shortfalls if these key accounts were to default, with the consequent loss of their proprietary trading activities.

(c) Litigation risks

Deutsche Börse is currently involved in the following lawsuits, whose outcome could have adverse financial effects:

1. A Eurex participant is currently claiming damages of around €8 million from Eurex Clearing AG because, as a Eurex general clearing member, it had to accept liability for the default of a bankrupt non-clearing member that had settled trades through the clearing member and had defaulted on its obligations. Eurex Clearing AG believes that this claim is unsubstantiated. The matter is being heard at Eurex Clearing AG's court of arbitration.

2. CBOT is the defendant in a patent case in the USA. As part of the pre-trial discovery, CBOT, a/c/e Alliance CBOT/Eurex LLC. and Deutsche Börse AG have been called by the court to submit comprehensive information on the trading system operated by a/c/e, among other things. Because the a/c/e system is based on the Eurex system, no assurance can be given that this litigation will not affect the operation of the Eurex system in the USA.

3. In 2001, Deutsche Börse was sued by a number of companies listed on Neuer Markt. The issuers were opposing an amendment to the Neuer Markt Rules and Regulations adopted by Deutsche Börse AG in the summer of 2001 to introduce delisting for penny stocks. Under this new rule, Deutsche Börse AG can terminate admission to the Neuer Markt if bankruptcy proceedings are commenced against an issuer, or if such proceedings are dismissed due to lack of assets, or if the issuer's market capitalization has fallen below €20 million for a certain period, and the average price of the issuer's shares is less than €1 during this period. All of these cases are still appealable, and irrespective of the final outcome – some were lost and others won by Deutsche Börse AG – they will have no effect on Deutsche Börse AG's net assets and financial position. None of the claims relate to financial compensation.

## Risk management

In line with the risk classification, risk management at Deutsche Börse Group is broken down into strategic competition and regulatory risks, project risks and operating risks.

At weekly meetings with internal and external experts, the Executive Board is kept informed about the development of core competition risk indicators on the basis of business developments. Organizational units that liaise with the bodies involved in the legislative process identify and report at an early stage on potential regulatory risks.

The Executive Board is also kept informed on a weekly basis and in meetings of the project steering committees about the project risks resulting from Deutsche Börse Group's strategic projects.

The operating risk is measured, analysed and reported regularly or on an ad hoc basis to the Executive Board by the central Risk Management department. This system ensures that the managers responsible are continuously and comprehensively informed about the risk position.

Early-warning indicators developed in the course of risk assessments normally track the business process involved in providing a certain service. A database is used to enable access to statistical reports and to provide near-real time identification of both direct increases in risk and medium-to long-term trends. If such a development is identified, the process manager immediately initiates risk control measures.

Eurex Clearing AG initially limits the risk of default by a counterparty that arises from its own function as central counterparty by ensuring that only institutions with substantial collateral in the form of liable capital are admitted as clearing participants.

The risk borne by Eurex Clearing is further reduced by the fact that clearing members who are liable for the performance of trades executed via them on Eurex are subject to margin calls. Eurex Clearing recalculates the margins to be provided by the participants to the trades executed during the course of the day in near-real time, and can thus reduce its residual risk. Eurex can calculate margins every fifteen minutes. The advantage of this is that the level of any potential shortfall in the cover of counterparty risk can be continuously established and eliminated, if required, by intraday margin calls and the margin provisions. If this collateral is insufficient, Eurex Clearing can also make use of a clearing fund established for this purpose.

Deutsche Börse Group's cash reserves are invested in euros, mostly in money market instruments with very high credit quality. The instruments used principally comprise term money deposits with prime-rated banks protected by German deposit insurance funds or third-party bank guarantees, and shares in money market funds where the credit risk is very low due to the high credit rating and the diversification of fund securities. The systematic use of market information systems also enables Deutsche Börse Group to take countermeasures at an early stage if risks arise.

Group liquidity is regularly projected on a monthly basis for the current and the following year. This in turn determines the maturity structure of cash investments. In the event of unexpected disbursements for which insufficient cash reserves are available, term deposit investments may be liquidated (against payment of early repayment interest penalties). Intraday credit facilities amounting to €700 million and an overnight line of credit amounting to €350 million are maintained at banks. These are earmarked specifically to hedge the liquidity risks from the management of Eurex Clearing AG's accounts used to settle the activities of Eurex Frankfurt AG, Eurex Bonds GmbH and Eurex Repo GmbH handled by Eurex Clearing AG.

### **Events after the close of the period under review**

The financing of the acquisition of the shares in Clearstream International in 2000 resulted in bank liabilities of €90 million carried in the balance sheet as at 31 December 2001. These liabilities had maturities of up to nine years (January 2001 to January 2010); at least €10 million were repayable in January of each year. Due to Deutsche Börse AG's positive cash position, the entire loan amount of €90 million was repaid in January 2002 by a special repayment. Offsetting transactions for existing interest swap agreements with matching amounts and maturities were also entered into in January 2002; these will result in an expense of €2.5 million in 2002.

Deutsche Börse plans to publish an acquisition offer for the 50 percent interest in Clearstream International S.A. held by Cedel International S.A. Cedel's and Clearstream's boards have approved the offer. Deutsche Börse's offer requires the approval of two thirds of Cedel's shareholders, and is subject to certain further conditions, such as regulatory approval. It values Clearstream at €3.2 billion, and if they approve the bid, Cedel shareholders will receive €1.6 billion, plus an additional amount equivalent to the net present value of Cedel's other assets. The shareholders can choose between cash and up to an aggregate maximum of 8 million Deutsche Börse shares.

Deutsche Börse's offer, equating to a valuation of €3.2 billion, represents a multiple of approximately 20 times Clearstream's expected 2002 net earnings before synergies and restructuring charges. The transaction would only be marginally dilutive to Deutsche Börse's IAS gross earnings. Deutsche Börse expects to achieve significant long-term cost synergies by improving operating efficiency, coordinating software development and costs, and achieving savings in central Group administrative functions.

## Outlook

Deutsche Börse's German home market is very strong. In terms of market capitalization and the number of listed companies, Germany is one of the world's largest equity markets. The potential for further growth is still considerable, as shown by a comparison of the number of listed companies in various countries, together with these countries' GNP.

Number of domestic listed companies vs. GNP <sup>1)</sup>	
UK	1.00
Spain	0.98
Netherlands	0.68
USA	0.58
France	0.42
Germany	0.26
Italy	0.16

<sup>1)</sup> Annual GNP, all figures end-2000, UK = 1

If the number of companies listed in Germany were similar to that in the UK, the number of traded equities would rise by a factor of 3.8.

The following factors suggest that this latent potential can be realized:

- The most recent tax reform will boost the number of listed companies: corporations will streamline their investment structure and bring their subsidiaries to market. Because capital gains from the sale of equity investments are now tax-free, a considerably larger proportion of the shares of many companies will be freely tradable. This in turn will increase Germany's weighting in the international stock indices and result in appreciable inflows of funds.
- Many family-owned companies will solve the issue of successorship by going public.
- As a result of the pension reforms introduced by Walter Riester, German Minister of Labour and Social Affairs, large cash inflows are expected for funds, which will invest a portion of their investors' money in equities. Growth in the number of high net worth individuals will also boost demand for equities.
- The planned capital adequacy rules for the banking industry ("Basel II") envisage stiffer disclosure requirements to banks, plus external ratings for medium-sized companies. This will make equities a much more attractive financing instrument than at present.
- The Fourth Financial Market Promotion Act will improve the statutory framework for securities trading starting in 2002. In addition to more far-reaching powers for stock exchanges to develop market segments, the new omnibus law will also impose more severe penalties for insider trading and other market price manipulation. This means that issuers and investors will be able to choose from a larger number of even more attractive segments, and trading will become more transparent.

Deutsche Börse's medium-term business growth will be largely unaffected by the number of IPOs, growth in market capitalization or index levels. It will be driven primarily by the level of trading activity on the securities and derivatives markets operated by Deutsche Börse. With diversified revenue sources, the projected high growth rates for trading activity on the German and European capital markets, and the economies of scale inherent in Deutsche Börse's business model, the Executive Board forecasts further revenue growth for 2002 resulting in overproportionate growth in EBITDA (earnings before interest, taxes, depreciation and amortization). In the medium term, the Executive Board is seeking annual sales revenue growth of 10 percent while maintaining the Group's relative earnings power.

Deutsche Börse will continue investing in the expansion of its systems environment and its network. All of Deutsche Börse's divisions will provide a growing number of resources that will offer supplementary services to the users of trading, settlement and information systems. Deutsche Börse's objective is to expand its existing offering appreciably, and to increase the customer benefits from its products and services. This will reflect the growing importance of the divisions in the competitive environment. By contrast, investments in software and systems will ease over the next few years from their current level of around €100 million per year, unless business combinations, regulatory changes or customer demand drive up investment requirements.

# CONSOLIDATED INCOME STATEMENT

for the period 1 January to 31 December 2001

	Note	2001 €m	2000 €m
Sales revenue	6	760.3	702.3
Own expenses capitalized	7	62.6	31.0
Other operating income	8	77.3	95.7
		<b>900.2</b>	<b>829.0</b>
Staff costs	9	-112.0	-105.0
Depreciation and amortization expense	10	-83.3	-83.1
Other operating expenses	11	-471.6	-487.9
Income from equity investments	12	58.0	73.2
Write-downs on long-term investments	13	-13.2	-9.7
<b>Earnings before interest and taxes (EBIT)</b>		<b>278.1</b>	<b>216.5</b>
Net financial income	14	41.1	2.4
<b>Profit before tax from ordinary activities</b>		<b>319.2</b>	<b>218.9</b>
Extraordinary gains	15	0	74.2
Income tax expense	16	-116.2	-71.5
Other taxes		0	-1.1
		<b>-116.2</b>	<b>-72.6</b>
<b>Net profit for the period</b>		<b>203.0</b>	<b>220.5</b>
DVFA/SG earnings per share (€)	40	2.04	1.95

# CONSOLIDATED BALANCE SHEET

as at 31 December 2001

ASSETS	Note	2001 €m	2000 €m
<b>NONCURRENT ASSETS</b>			
<b>Intangible assets</b>	17		
Software		207.7	153.9
Goodwill		51.3	0
Payments on account		0.8	20.1
		<b>259.8</b>	<b>174.0</b>
<b>Plant and equipment</b>	17		
Leasehold improvements		15.2	15.4
Computer hardware, operating and office equipment		41.7	49.1
Payments on account and construction in progress		0.4	0
		<b>57.3</b>	<b>64.5</b>
<b>Long-term investments</b>	17		
Investments in subsidiaries		1.2	1.1
Investments in associates		382.8	341.9
Other equity investments		2.5	2.5
Noncurrent financial investments		32.1	34.8
Other long-term loans		1.5	1.5
		<b>420.1</b>	<b>381.8</b>
<b>Total noncurrent assets</b>		<b>737.2</b>	<b>620.3</b>
<b>CURRENT ASSETS</b>			
<b>Receivables and other assets</b>	18		
Trade receivables		112.7	116.8
Receivables from banking business		6.9	0
Intragroup receivables		0.8	1.1
Associate receivables		2.2	8.4
Receivables from other investors		2.9	0
Other assets		41.4	25.5
		<b>166.9</b>	<b>151.8</b>
<b>Current financial investments</b>	19	<b>302.9</b>	<b>0</b>
<b>Cash and bank balances</b>	20	<b>916.9</b>	<b>140.6</b>
<b>Total current assets</b>		<b>1,386.7</b>	<b>292.4</b>
<b>Deferred tax assets</b>	21	<b>11.2</b>	<b>10.0</b>
<b>Total assets</b>		<b>2,135.1</b>	<b>922.7</b>

SHAREHOLDERS' EQUITY AND LIABILITIES	Note	2001 €m	2000 €m
<b>SHAREHOLDERS' EQUITY</b>			
Subscribed capital	22	102.8	18.8
Share premium		945.5	44.8
Legal reserve		0.3	0.2
Other retained earnings		446.0	306.4
Revaluation surplus		5.7	7.8
Unappropriated surplus		60.0	41.8
		<b>1,560.3</b>	<b>419.8</b>
<b>Minority interests</b>	24	<b>10.6</b>	<b>4.3</b>
<b>PROVISIONS AND LIABILITIES</b>			
<b>Long-term provisions</b>			
Provision for pensions and other employee benefits	26	31.2	24.5
Deferred tax liabilities	27	47.6	28.7
Other long-term provisions	28	26.3	31.1
		<b>105.1</b>	<b>84.3</b>
<b>Short-term provisions</b>			
Tax provisions	29	26.9	58.0
Other short-term provisions	30	25.4	8.7
		<b>52.3</b>	<b>66.7</b>
<b>Noncurrent liabilities</b>			
Interest-bearing liabilities	31	0	90.0
Other noncurrent liabilities		11.1	0
		<b>11.1</b>	<b>90.0</b>
<b>Current liabilities</b>			
Bank loans and overdrafts		90.0	34.5
Trade payables		70.2	71.1
Payables to other investors		12.6	13.4
Cash deposits by Eurex participants	32	164.7	71.1
Other current liabilities	33	58.2	67.5
		<b>395.7</b>	<b>257.6</b>
<b>Total provisions and liabilities</b>		<b>564.2</b>	<b>498.6</b>
<b>Total shareholders' equity and liabilities</b>		<b>2,135.1</b>	<b>922.7</b>

# CONSOLIDATED CASH FLOW STATEMENT

for the period 1 January to 31 December 2001

	Note	2001 €m	2000 €m
Net profit for the period		203.0	220.5
Depreciation and amortization expense		96.5	92.8
Decrease in long-term provisions		-0.7	-38.9
Deferred tax expense/income		19.8	-6.7
Other non-cash income and expense		-36.0	-132.1
<b>DVFA/SG cash flow</b>		<b>282.6</b>	<b>135.6</b>
Change in working capital, net of non-cash items:			
Decrease/(increase) in receivables and other assets		4.7	-43.5
Increase/(decrease) in short-term provisions		13.3	-5.5
Increase in noncurrent liabilities		1.5	0
(Decrease)/increase in current liabilities		-21.3	13.2
Adjustments for interest and taxes contained in net profit for the period		55.3	75.8
Interest received and income from other noncurrent financial investments and long-term loans		48.4	8.5
Interest paid		-7.3	-0.7
Income tax paid		-128.9	-86.6
Net loss on disposal of plant and equipment		0.5	4.7
<b>Cash flows from operating activities</b>	36	<b>248.8</b>	<b>101.5</b>
Investments in noncurrent assets		-113.0	-253.2
Investments in subsidiaries		-48.9	0
Proceeds from disposal of noncurrent assets		1.2	0.9
<b>Cash flows from investing activities</b>	37	<b>-160.7</b>	<b>-252.3</b>
Net IPO proceeds		961.8	0
Dividends paid		-30.8	-58.7
Proceeds from long-term financing		0	100.0
Repayment of long-term borrowings		-10.0	0
<b>Cash flows from financing activities</b>	38	<b>921.0</b>	<b>41.3</b>
Net change in cash and cash equivalents		1,009.1	-109.5
Cash and cash equivalents at beginning of period (excl. Eurex participants' cash deposits)		45.0	227.1
Deconsolidation of receivables and liabilities from banking business (included in cash and cash equivalents in the previous year)		0	-72.6
Cash contributed by first-time consolidation of subsidiaries		7.9	0
<b>Cash and cash equivalents at end of period (excl. Eurex participants' cash deposits)</b>	39	<b>1,062.0</b>	<b>45.0</b>
DVFA/SG cash flow per share (€)		2.83	1.85

# CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

for the period 1 January to 31 December 2001

	2001 €m	2000 €m
<b>Subscribed capital</b>		
Balance as at 1 January	18.8	18.8
Issue of new shares	7.5	0
Capital increase from share premium and retained earnings	76.5	0
<b>Balance as at 31 December</b>	<b>102.8</b>	<b>18.8</b>
<b>Share premium</b>		
Balance as at 1 January	44.8	44.8
Issue of new shares	976.1	0
IPO costs	-36.8	0
Deferred taxes on IPO costs	15.1	0
Capital increase from share premium	-53.7	0
<b>Balance as at 31 December</b>	<b>945.5</b>	<b>44.8</b>
<b>Retained earnings</b>		
Balance as at 1 January	306.6	113.4
Capital increase from retained earnings	-22.8	0
Adjustment from deconsolidation of CBF	0	-3.5
Appropriations from unappropriated surplus (incl. any IAS adjustments)	154.7	194.1
Adjustments from deferred taxes (incl. previous years)	2.4	2.5
Measurement of interest rate swaps	-3.8	0
Increase in carrying amount of investments held by Clearstream International S.A.	9.0	0
Other adjustments	0.2	0.1
<b>Balance as at 31 December</b>	<b>446.3</b>	<b>306.6</b>
<b>Revaluation surplus</b>		
Balance as at 1 January	7.8	6.5
Remeasurement of long-term investments	-2.1	1.3
<b>Balance as at 31 December</b>	<b>5.7</b>	<b>7.8</b>
<b>Unappropriated surplus</b>		
Balance as at 1 January	41.8	74.5
Dividends paid	-30.8	-58.7
Net profit for the period	203.0	220.5
Minority interests	0.7	-0.4
Appropriation to retained earnings (incl. any IAS adjustments)	-154.7	-194.1
<b>Balance as at 31 December</b>	<b>60.0</b>	<b>41.8</b>
<b>Shareholders' equity as at 31 December</b>	<b>1,560.3</b>	<b>419.8</b>

Net profit for the period, plus gains and losses recognized directly in equity, amounted to €186.8 million (2000: €224.3 million).

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## Basis of preparation

### 1. General principles

The consolidated financial statements of Deutsche Börse AG, Frankfurt/Main, for the year ended 31 December 2001 were prepared in accordance with the International Accounting Standards (IASs) issued by the International Accounting Standards Board (IASB), and comply with the significant accounting policies of the Company as presented in these Notes.

Deutsche Börse AG's IAS consolidated financial statements for the year ended 31 December 2001 contain the following significant differences in the accounting policies and presentation compared with those used in the previous year:

#### **IAS 39**

IAS 39 (Financial Instruments: Recognition and Measurement) was updated in 2000 and is binding for reporting periods starting on or after 1 January 2001. It defines the following four categories of financial assets:

- financial assets or liabilities held for trading
- held-to-maturity investments
- loans and receivables originated by the enterprise (originated loans and receivables), and
- available-for-sale financial assets.

In accordance with IAS 39, a financial asset is classified as available for sale if it does not properly belong in one of the three other categories of financial assets.

As at 31 December 2001, Deutsche Börse Group did not hold any held-to-maturity investments. Deutsche Börse Group has granted employee loans that are classified as originated loans. Current financial investments held as at 31 December 2001 are classified as financial assets held for trading. The noncurrent financial investments and equity instruments held as at 31 December 2001 are classified as available-for-sale financial assets.

In accordance with IAS 39.69, financial instruments are generally measured at their fair values. Noncurrent and current financial investments are therefore marked-to-market. The exception to this rule involves financial assets that do not have a quoted market price in an active market, and whose fair value cannot be reliably measured. Because there is no reliable fair value for Deutsche Börse Group's interests in equity instruments, these are measured at cost. In accordance with IAS 39.73, there is a further exception for loans originated by the enterprise that are not held for trading and have a fixed maturity. These financial assets are measured at amortized cost using the effective interest rate method. Because no interest is charged either implicitly or explicitly on such employee loans, they are carried at cost.

In accordance with IAS 39.103, gains or losses on financial assets held for trading are included in the net profit or loss for the period in which they arise. Gains or losses on current financial investments are therefore recognized in net financial income.

In accordance with IAS 39.103, gains or losses on available-for-sale financial assets are either included in net profit or loss for the period in which they arise, or recognized directly in equity through the statement of changes in shareholders' equity until the financial asset is sold, collected or otherwise disposed of, or until the financial asset is determined to be impaired, at which time the cumulative gain or loss previously recognized in equity must be included in net profit or loss for the period. Gains or losses on noncurrent financial investments are therefore taken directly to a revaluation surplus in the statement of changes in shareholders' equity.

In accordance with IAS 39.108, gains or losses on financial assets carried at cost are recognized in net profit or loss for the period when the financial asset is sold, collected or otherwise disposed of, impaired, or amortized. There were no such changes in 2001.

Deutsche Börse AG has entered into two interest rate swaps that convert the interest payments on floating rate bank loans into a fixed amount. In accordance with IAS 39.142, such interest rate swaps are classified as highly effective hedges of future cash flow risks. Closing out the two swaps would have incurred costs of €3.8 million as at 31 December 2001. In accordance with IAS 39.158, a liability for the swaps was therefore recognized in this amount directly in equity. Closing out the two swaps would have incurred costs of €2.8 million as at 31 December 2000. In accordance with IAS 39.172, the prior-period balance sheet as at 31 December 2000 was not restated.

### **Structure of the financial statements**

To enhance the distinction between current and noncurrent items in accordance with IAS 1.53 (Presentation of Financial Statements), provisions and liabilities are presented separately in the balance sheet. To comply with IAS 1.54, provisions and liabilities are presented as short-term/current and long-term/noncurrent provisions and liabilities. Short-term provisions and current liabilities are those expected to be settled within twelve months of the balance sheet date, and long-term provisions and noncurrent liabilities are those expected to be settled after more than twelve months from the balance sheet date. The classification of the cash flow statement was also changed in order to enhance the presentation of cash flows from operating activities. The amounts in the prior-year financial statements as at 31 December 2000 have been restated accordingly.

It is expected that all significant receivables are collected within twelve months of the balance sheet date. Exceptions to this are disclosed in note 18. For this reason, short-term and long-term assets are not classified separately in the balance sheet.

## 2. Basis of consolidation

Deutsche Börse AG's interests in subsidiaries, associates and joint ventures as at 31 December 2001 are presented in the following table:

Company	Equity interest at 31 Dec. 2001	Ordinary share capital	Equity	Total assets	Sales revenue 2001	Net profit/loss 2001	First consolidated
Amounts in € thousands unless otherwise indicated	% direct (indirect)						

### Fully consolidated subsidiaries as at 31 December 2001:

Deutsche Börse Systems AG <sup>1)</sup>	100.00	2,000	2,655	86,010	365,859	93,410	1993
Deutsche Börse Systems Inc.	(100.00)	454	USD <sup>2)</sup>	530	2,104	5,687	144
NeuerMarkt.com AG <sup>1)</sup>	100.00	500	4,000	11,668	766	-10,872	2000
Xlaunch AG <sup>1)</sup>	100.00	500	4,000	6,494	2,425	-5,877	2000
Eurex Zürich AG	49.97	6,744	CHF <sup>2)</sup>	29,445	81,019	30,407	1,580
Eurex Frankfurt AG	(49.97)	6,000	16,504	54,199	206	3,855	1998
Eurex Beteiligungen AG	(49.97)	66	CHF <sup>2)</sup>	874	535	0	2000
Eurex Clearing AG <sup>1)</sup>	(49.97)	5,113	8,733	203,799	71,278	1,046	1998
Eurex Bonds GmbH	(38.28)	3,600	8,412	10,770	2,257	-6,143	1 Nov. 2001
Eurex Repo GmbH <sup>1)</sup>	(49.97)	50	50	2,152	143	-1,972	27 Feb. 2001
entory AG	52.02	8,000	9,876	26,159	97,377	658	17 Dec. 2001
entory (UK) Ltd.	(52.02)	80	GBP <sup>2)</sup>	-876	68	1,554	-737
Finnovation GmbH <sup>1)</sup>	(52.02)	25	25	56	119	10	17 Dec. 2001
Finnovation (UK) Ltd.	(52.02)	0	0	0	0	0	17 Dec. 2001
atec GmbH	(52.02)	26	79	190	407	2	17 Dec. 2001
entory Ventures GmbH	(52.02)	462	-109	1	0	-567	17 Dec. 2001
projects IT-Projektbörsen GmbH	(48.91)	511	-526	51	236	-401	17 Dec. 2001

<sup>1)</sup> Before profit transfer or loss absorption

<sup>2)</sup> thousands

Company	Equity interest at 31 Dec. 2001	Ordinary share capital	Equity	Total assets	Sales revenue 2001	Net profit/loss 2001
Amounts in € thousands	% direct (indirect)					

### Associates and joint ventures carried at equity as at 31 December 2001 in accordance with IAS 28 or IAS 31:

Clearstream International S.A.	50.00	150,000	740,386	7,904,145	979,549	113,368
FDS Finanz-Daten-Systeme GmbH & Co. KG	50.00	19,451	2,876	4,540	646	-3,018
NEWEX Börse AG	50.00	5,087	4,673	5,814	493	-3,157
STOXX Ltd.	25.00	612	5,295	12,950	-	3,560
a/c/e Alliance CBOT/Eurex LLC. <sup>1)</sup>	(24.99)	-	-	-	-	-
European Energy Exchange AG	(23.24)	20,000	17,146	51,238	3,968	-12,319
iBoxx Ltd.	19.997	7,000	5,235	5,362	0	-1,765

<sup>1)</sup> Annual financial statements not yet available

Company	Equity interest at 31 Dec. 2001	Ordinary share capital	Equity	Total assets	Sales revenue	Net profit/loss 2000
Amounts in € thousands	% direct (indirect)					
<b>Other subsidiaries and associates carried at cost due to their insignificance for the presentation of a true and fair view of the Group's net assets, financial position and results of operations:</b>						
Deutsche Gesellschaft für Wertpapierabwicklung mbH <sup>1)</sup>	100.00	537	570	2,094	0	3,797
DeuBö Vermögensverwaltungs AG	100.00	50	46	46	0	-5
Xlaunch Erste Verwaltungsgesellschaft mbH	(100.00)	25	25	25	0	0
Xlaunch Zweite Verwaltungsgesellschaft mbH	(100.00)	25	25	25	0	0
Deutsche Börse Erste Verwaltungsgesellschaft mbH	100.00	25	25	25	0	0
Fördergesellschaft für Börsen und Finanzmärkte in Mittel- und Osteuropa mbH <sup>1)</sup>	86.00	256	256	678	0	-967
IX International Exchanges Ltd. <sup>2)</sup>	50.00	-	-	-	-	-
Deutsches Börsenfernsehen GmbH	35.11	51	68	79	0	-12
Deutsche Gesellschaft für Ad hoc-Publizität mbH <sup>1)</sup>	33.33	330	1,443	2,179	3,768	1,108

<sup>1)</sup> Equity and net profit 2000<sup>2)</sup> Annual financial statements not yet available

Eurex Frankfurt AG's voting rights in Eurex Bonds GmbH were increased to reflect its equity as a consequence of a capital restructuring on 1 November 2001, since when all voting rights in Group companies have corresponded to the equity interests held.

Changes in the basis of consolidation are presented in the following table:

Fully consolidated subsidiaries	Germany	Foreign	Total
As at 1 January 2001	5	3	8
Additions	7	2	9
<b>As at 31 December 2001</b>	<b>12</b>	<b>5</b>	<b>17</b>

Deutsche Börse AG's direct equity interest in Eurex Zürich AG, including the 0.02 percent interest held by members of its Executive Board, amounts to 49.97 percent. On the basis of the profit participation rights granted to Deutsche Börse AG – comprising not only a threefold dividend right, but also a corresponding share in any liquidation proceeds – its actual beneficial interest in Eurex Zürich AG's profit or loss is 79.99 percent. Capital consolidation is based on this figure. After allowance for voting trust and pooling arrangements, the share of voting rights is 50 percent.

Deutsche Börse AG acquired a 52 percent interest in entory AG on 17 December 2001. The remaining 48 percent interest is expected to be acquired during the course of 2002. For this reason, entory AG's balance sheet was fully consolidated for the first time as at 31 December 2001. Consolidation produced goodwill of €51.5 million as at 31 December 2001. Further information on the acquisition of entory AG is contained in note 42.

Eurex Frankfurt AG held a 70 percent interest in Eurex Bonds GmbH until 31 October 2001, but only 30 percent of the voting rights due to a shareholders' agreement. For this reason, Eurex Bonds GmbH was not consolidated in the prior-year periods, but was carried at equity. Following a restructuring and a capital increase at the company, the voting rights were brought into line with the increased equity interest of 76.67 percent on 1 November 2001, since when Eurex Bonds GmbH has been fully consolidated. Between 1 November and the end of the year, the company generated revenues of €73 thousand and a net loss of €1.66 million.

Eurex Repo GmbH was formed on 27 February 2001 with a share capital of €50 thousand to complement the Eurex product portfolio. In 2001, this company generated revenues of €143 thousand, and a loss of €1.97 million before loss absorption by Eurex Frankfurt AG.

The closing date of the individual financial statements of the companies consolidated is the same as the balance sheet date of the consolidated financial statements.

### **3. Consolidation methods**

#### **Capital consolidation**

Capital consolidation uses the purchase method of accounting by eliminating acquisition costs against the acquiree's equity attributable to the parent company at the acquisition date. Consolidation differences are allocated to the subsidiaries' balance sheet items at their fair value, and a corresponding item for minority interests is recognized. Any remaining excess of acquisition costs over net assets acquired is recognized in intangible assets as goodwill and amortized against income over its expected useful life. Any negative goodwill from first-time consolidation is allocated to reserves or provisions, depending on its origin. In the event of permanent impairment, any goodwill already carried as an intangible asset is immediately written down to income.

#### **Other consolidation adjustments**

Intragroup receivables and liabilities are eliminated. Income from intercompany transactions is eliminated against the corresponding expenses during the consolidation of income and expense. Intercompany profits or losses from deliveries of intragroup goods and services are eliminated. Deferred tax assets or liabilities are recognized on consolidation adjustments where these are expected to reverse in subsequent years.

Interests in equity and earnings attributable to minority shareholders are carried under minority interests.

#### 4. Accounting policies

The annual financial statements of the consolidated subsidiaries have been prepared on the basis of uniform accounting policies. The single-entity financial statements of associates were not adjusted to comply with uniform Group accounting policies.

##### **Revenue recognition**

Trading fees on cash and derivatives markets are recognized immediately at the trade date. Fees from the sale of information products and system operation services are generally recognized ratably on a monthly basis.

##### **Intangible assets**

Purchased intangible assets are carried at cost and reduced by amortization. Amortization is charged using the straight-line method over the expected useful life or until the proprietary right in question has expired. Assumed useful lives are presented in the following table. The Xetra and Eurex software capitalized since 2000 is amortized over five years.

Asset	Amortization method	Useful life	Recognition
Purchased goodwill	Straight-line	20 years	Ratable
Standard software	Straight-line	3 years	Ratable
Custom software	Straight-line	3 to 6 years	Ratable

Research costs are expensed in the period in which they are incurred. Development costs are capitalized at production cost, provided that they cumulatively satisfy the recognition criteria set out in IAS 38. Such development costs include directly attributable labor costs (internal staff and external consultants) and workstation costs, including proportionate overheads and software development environment costs. Interest costs are not included in production costs.

Capitalized development costs are reduced by straight-line amortization over the expected useful life amounting to three to five years, starting on the date of first use. Internally generated software that is no longer used, or whose future useful life is shorter than originally assumed, is written down.

Purchased goodwill, including goodwill from the first-time consolidation of subsidiaries, is capitalized and reduced by straight-line amortization.

### **Plant and equipment**

Plant and equipment is carried at cost and reduced by depreciation for wear and tear. Depreciation of plant and equipment is based largely on the following useful lives:

Asset	Amortization method	Useful life	Recognition
Computer hardware	Straight-line	3 years	Simplification procedure
Office equipment	Straight-line/ declining balance	Based on useful life of 5 to 25 years	Simplification procedure
Leasehold improvements	Straight-line	Based on lease term	Ratable

Based on the expected future cash flows, noncurrent assets are examined to establish whether their market or fair value is lower than their carrying amount. If this is the case, the assets are written down to their market or fair value in accordance with IAS 36.

Low-value assets (purchase price less than €409) are written off immediately. Repair and maintenance costs are expensed when they are incurred. The cost of refurbishment and significant improvements is capitalized.

Leased plant and equipment is capitalized and depreciated in accordance with IAS 17 if the criteria for finance leases are satisfied. These criteria are not currently satisfied for leased assets (e.g. computer hardware, telephone systems and office equipment), so none of the leased assets have been capitalized.

### **Long-term investments**

There are five categories of long-term investments: investments in subsidiaries, investments in associates, other equity investments, noncurrent financial investments and other long-term loans.

Investments in subsidiaries are those investments not consolidated in accordance with IAS 27.11 because they are insignificant for the presentation of a true and fair view of the Group's net assets, financial position and results of operations. In accordance with IAS 27.30, investments in unconsolidated subsidiaries are carried at cost.

In the case of investments in associates, a distinction is made between joint ventures and other associates, depending on the equity interests held. Joint ventures and other associates are generally carried at equity in accordance with IAS 31.42 or IAS 28.8. Where joint ventures or other associates are not valued at equity, they must be carried at their fair values in accordance with IAS 39.69. Other associates are carried at cost because of their insignificance and because it is not possible to measure their fair value reliably.

Other equity investments are equity interests of less than 20 percent that are designed to establish a permanent relationship with the company concerned. In accordance with IAS 39.69, financial assets are generally measured at their fair values. An exception to this rule covers financial assets that do not have a quoted market price in an active market, and whose fair value cannot be reliably measured. Because no reliable fair value can be established for Deutsche Börse Group's interests in other equity investments, these are measured at cost.

Noncurrent financial investments are classified as available-for-sale financial assets and carried at their fair values in accordance with IAS 39. In accordance with IAS 39.103, gains or losses on noncurrent financial investments are therefore taken directly to a revaluation surplus in the statement of changes in shareholders' equity until the financial asset is sold, collected or otherwise disposed of, or until the financial asset is determined to be impaired, at which time the cumulative gain or loss previously recognized in equity is included in net profit or loss for the period. Changes in the fair values of non-current financial investments are therefore taken directly to equity in the statement of changes in shareholders' equity.

Other long-term loans are carried at cost.

#### **Current assets**

Receivables, other assets, and cash and cash equivalents are carried at their principal amount. Adequate valuation allowances take account of identifiable risks.

Current financial investments are classified as financial assets held for trading and are carried at their fair values in accordance with IAS 39.69. Gains or losses on current financial investments are recognized in net financial income in accordance with IAS 39.103.

#### **Provisions**

Provision for pension obligations is measured using the projected unit credit method on the basis of actuarial reports, in accordance with IAS 19. Retirement provision for Group employees is ensured by a variety of retirement benefit plans, the use of which varies from country to country. To standardize retirement provision for employees of Deutsche Börse Group in Germany, a deferred compensation plan was introduced effective 1 July 1999. Since this time, new commitments are only entered into on the basis of this deferred compensation plan; the existing pension plans were closed as at 30 June 1999. Employees with pension commitments on the basis of the old retirement benefit arrangements were given an option to participate in the deferred compensation plan by converting their existing pension rights.

entory AG established a defined benefit occupational pension plan for its employees and members of its executive board in 1986. The provision for pension obligations was measured on the basis of an actuarial report by Gerling Lebensversicherung AG using the projected unit credit method.

Neither Deutsche Börse Group nor the entory Group use an external fund to finance their pension obligations; rather, they establish a provision in the amount of the annual net pension expense for which the companies are liable on the basis of their pension obligations. The pension obligations of Deutsche Börse Group and of the entory Group are secured in part by reinsurance policies. The capitalized surrender value of these reinsurance policies is carried under other assets.

There are defined contribution pension plans for employees working in Switzerland or the USA. The employer pays contributions to these employees' private pension funds.

In accordance with IAS 37, the other provisions take account of all identifiable risks and uncertain obligations and are set up in the amount of the probable obligation.

### **Deferred tax assets and liabilities**

Deferred tax assets and liabilities are computed using the balance sheet approach. The deferred tax calculation is based on temporary differences between the carrying amounts in the tax accounts and the carrying amounts in the IAS financial statements that lead to a future tax liability or benefit when assets are used or sold or liabilities are settled. The deferred tax assets or liabilities are recognized in the amount of the expected tax benefit or liability in future years.

### **Liabilities**

Liabilities are carried at their redemption amount.

### **Financial instruments**

Derivatives are used exclusively to hedge recognized underlying instruments. Two forward interest rate swaps totalling €90.0 million had been entered into by the balance sheet date to hedge interest rate risks from a financing transaction conducted in December 1999. In accordance with IAS 39, the interest rate swaps were measured at the balance sheet date, and the resulting negative fair value has been charged directly to equity.

Following the acquisition of entory AG, Deutsche Börse AG was granted options to purchase the remaining 48 percent of entory AG's shares. No premiums were paid for these options. As at 31 December 2001, these options were measured at their purchase cost of €0.

### **Currency translation**

In accordance with IAS 21, foreign currency transactions are translated at the middle rate prevailing at the transaction date. At the balance sheet date, monetary balance sheet items are measured at the exchange rate at the balance sheet date, while non-monetary balance sheet items are measured at historical cost. Exchange differences are recorded as income or expense in the period in which they arose unless the underlying transactions were hedged. Such income or expenses are contained in other operating expenses.

For reasons of materiality, the single-entity financial statements of the consolidated foreign subsidiaries Eurex Zürich AG and Deutsche Börse Systems Inc. are also translated in the consolidated financial statements at the middle rate prevailing at the balance sheet date. Exchange differences from capital consolidation are taken directly to other retained earnings.

The following euro exchange rates were used:

	31 Dec. 2001	Closing date 31 Dec. 2000
Swiss francs	1.4829	1.5232
US dollars	0.8813	0.9305

### **Consolidation of the Eurex derivatives exchange**

The Eurex derivatives exchange is operated jointly by Eurex Frankfurt AG, Eurex Zürich AG and Eurex Clearing AG; Eurex Clearing AG is responsible for clearing.

All Eurex transaction fees are collected by Eurex Clearing AG, which remits 80 percent of them to Deutsche Börse AG and 20 percent to SWX Swiss Exchange in accordance with the contractual arrangements. In 2001, Deutsche Börse AG received transaction fees generated from derivatives market trades amounting to €258.5 million (2000: €156.6 million). These fees are carried under sales revenue. The transaction fees of €64.6 million (2000: €39.1 million) attributable to SWX are not included in the consolidated financial statements.

20 percent of the expenses incurred by the Eurex companies to operate the Eurex derivatives market – totalling €134.4 million in 2001 (2000: €117.5 million) – are borne by SWX (2001: €26.9 million; 2000: €23.5 million), and are contained in other operating income.

Eurex Zürich AG is fully consolidated as a subsidiary in Deutsche Börse AG's IAS consolidated financial statements. SWX also holds an equity interest in Eurex Zürich AG, and a corresponding minority interest item was recognized during consolidation. This item is adjusted to reflect proportionate changes in capital and annual results. As at 31 December 2001, SWX's interest was valued at €3.9 million (2000: €4.3 million).

### **5. Significant differences in the financial reporting of Deutsche Börse Group between the International Accounting Standards (IASs) and the German Commercial Code (HGB)**

#### **Intangible assets**

In contrast to the HGB, IAS 38 requires internally generated intangible assets to be capitalized if certain criteria are satisfied. The software development expenses of the individual segments of Deutsche Börse Group are capitalized at cost.

#### **Financial instruments**

The HGB prohibits financial investments from being remeasured at an amount higher than the original acquisition cost. IAS 39.69 generally requires financial assets to be measured at their fair values, even if this means carrying financial investments at an amount higher than their original acquisition cost.

In accordance with the HGB, anticipated losses on financial instruments must be recognized as an expense. In accordance with IAS 39, financial instruments used as hedging instruments must be recognized directly in equity.

**Pension provisions**

HGB measurement of pension provisions normally uses the 6 percent discount rate prescribed by the German Income Tax Act. The IASs require the application of the current capital market rate as the discount rate, and also require pension provisions to reflect future salary and pension increases.

**Deferred taxes**

Under the HGB regulations, deferred taxes are computed using the income statement method. Companies have an option to carry deferred taxes as assets in their single-entity financial statements. The IASs require deferred taxes to be computed using the balance sheet approach, and also require the recognition of deferred tax assets.

**IPO costs**

The HGB requires the cost of raising capital to be expensed. In accordance with the IASs (Interpretation SIC 17), external costs directly attributable to an equity transaction should be accounted for as a deduction from equity, net of any related income tax benefit.

**Amortization of purchased goodwill**

Under the HGB, there is an option to capitalize goodwill from first-time consolidation, or to eliminate it against reserves on the face of the balance sheet. If goodwill is capitalized, it is amortized either over four years or over the expected useful life. In accordance with the IASs, purchased goodwill must be amortized over its useful life. The amortization period should reflect the best estimate of the period during which future economic benefits are expected to flow to the enterprise. There is a rebuttable presumption that the useful life of goodwill will not exceed 20 years from the date of initial recognition.

## Notes to the consolidated income statement

### 6. Sales revenue

A breakdown of external sales revenue by segment is presented below.

	2001 €m	2000 €m
<b>Xetra</b>		
Floor trading fees	88.7	129.6
Xetra trading fees	126.8	117.4
Listing fees	13.9	16.9
Income from cooperation agreements	8.1	8.9
Other sales revenue	5.6	5.0
	<b>243.1</b>	<b>277.8</b>
<b>Eurex</b>		
Trading and clearing fees	258.5	156.6
Other sales revenue	10.3	3.8
	<b>268.8</b>	<b>160.4</b>
<b>Information Products</b>		
Sales of price information	91.1	70.6
Other sales revenue	18.8	11.9
	<b>109.9</b>	<b>82.5</b>
<b>Xlaunch</b>		
	<b>2.4</b>	<b>0</b>
<b>Systems</b>		
Systems development	24.4	38.2
Systems operation	106.6	70.8
Other sales revenue	5.1	7.2
	<b>136.1</b>	<b>116.2</b>
<b>Licence fees</b>		
Reimbursement of systems operating costs (retained licence fees)	0	12.0
Passed-through licence fees	0	53.4
	<b>0</b>	<b>65.4</b>
<b>Total sales revenue</b>		
	<b>760.3</b>	<b>702.3</b>

Xetra and Eurex sales revenue is composed principally of trading and clearing fees earned per transaction or per contract. The other sales revenue in the Xetra and Eurex segments includes revenue from training and events, among other things.

Information Products generates most of its sales revenue from the sale of price information that is sold per terminal. Other revenue is generated by index licence income and the transmission of securities information.

The Systems segment develops and operates systems for internal Group and external customers. Following the adaptation of the Eurex system for the Board of Trade of the City of Chicago (CBOT) in 2000, external systems development revenue fell from €38.2 million in 2000 to €24.4 million in the year under review. External revenue from systems operation rose by 51 percent to €106.6 million, due primarily to the new contract with BrainTrade GmbH to operate the Xontro cash market trading system that is used for Frankfurt floor trading and by the regional stock exchanges. The other sales revenue was generated primarily by office services provided to Clearstream Banking AG, Frankfurt.

Following the transfer in 2000 of the Xontro system to BrainTrade GmbH, the operator of the floor trading system, fee income collected by Deutsche Börse Systems AG for the regional stock exchanges is no longer booked as sales revenue in the consolidated financial statements. The net amount of this fee income was €53.4 million in 2000.

## 7. Development costs and own expenses capitalized

Own expenses capitalized relate solely to development costs of internally generated software, involving the following systems and projects in the individual segments:

	Development costs		of which own expenses capitalized	
	2001 €m	2000 €m	2001 €m	2000 €m
<b>Xetra</b>				
Xetra software	16.7	12.8	11.6	9.4
Equity Central Counterparty	4.3	0	0	0
Common Internet Access	2.3	6.5	0	0
Xontro	0	1.9	0	0.9
	<b>23.3</b>	<b>21.2</b>	<b>11.6</b>	<b>10.3</b>
<b>Eurex</b>				
Eurex software	36.7	23.4	27.2	2.9
Integrated Clearer/Equity Central Counterparty	21.6	11.2	11.6	0
Common Internet Access	0	5.2	0	0
	<b>58.3</b>	<b>39.8</b>	<b>38.8</b>	<b>2.9</b>
<b>Information Products</b>				
Consolidated Exchange Feed	9.6	10.0	5.6	7.8
Xebos/Fixed Income Benchmark	2.2	5.9	2.2	4.9
Index Engine releases	1.8	2.7	1.6	1.2
Internet and Xetra Live	1.8	0	1.1	0
StatistiX	3.5	1.5	0	0
Consolidation Engine	2.3	0	0	0
	<b>21.2</b>	<b>20.1</b>	<b>10.5</b>	<b>13.9</b>
<b>Systems</b>				
Xentric	2.1	2.8	0.7	2.5
Integriertes Aktienbuch	2.0	2.2	1.0	1.4
	<b>4.1</b>	<b>5.0</b>	<b>1.7</b>	<b>3.9</b>
<b>Total development costs and own expenses capitalized</b>	<b>106.9</b>	<b>86.1</b>	<b>62.6</b>	<b>31.0</b>

Research costs not capitalized in the Systems segment in 2001 totalled €17.7 million (2000: €6.0 million).

## 8. Other operating income

Other operating income is composed of the following:

	2001 €m	2000 €m
Income from agency agreements	48.1	57.9
Income from the release of other provisions and liabilities	10.3	12.6
Rental income	5.0	1.0
Reimbursement of costs charged to partner exchanges	3.6	20.5
Miscellaneous	10.3	3.7
<b>Total other operating income</b>	<b>77.3</b>	<b>95.7</b>

The income from agency agreements results from the operational management of the Eurex Zürich derivatives market for SWX Swiss Exchange, and from centralized functions performed for certain companies, including Clearstream Banking AG, European Energy Exchange AG and Eurex Bonds GmbH.

Costs reimbursed by partner exchanges related primarily to the CBOT.

Miscellaneous other operating income relates primarily to income from cooperation agreements and from training.

## 9. Staff costs

Staff costs are composed of the following:

	2001 €m	2000 €m
Wages and salaries	94.4	87.4
Social security contributions, retirement and other benefit costs	17.6	17.6
<b>Total staff costs</b>	<b>112.0</b>	<b>105.0</b>

## 10. Depreciation and amortization expense

The depreciation and amortization expense is broken down as follows:

	2001 €m	2000 €m
Intangible assets	55.9	54.8
Plant and equipment	27.4	28.3
<b>Total depreciation and amortization expense</b>	<b>83.3</b>	<b>83.1</b>

The amortization expense for intangible assets includes write-downs of €2.7 million (2000: €12.3 million).

## 11. Other operating expenses

Other operating expenses are composed of the following:

	2001 €m	2000 €m
Legal and consulting costs	150.3	143.0
Premises expenses	43.1	37.8
Purchased IT services	40.3	55.0
Communication costs (incl. network costs)	36.6	41.6
Non-recoverable input tax	28.6	28.4
Xonto system operation	26.3	0
Advertising and marketing costs	20.6	29.6
Xetra settlement fees	20.6	17.2
Purchase of price information	19.7	16.4
Fees payable to Helsinki Exchanges (HEX)	15.4	4.4
Appropriations to provision for litigation and interest rate risks	9.7	3.2
Non-wage labor costs and voluntary social benefits	6.9	6.4
Cost of agency agreements	6.4	9.1
External labor	6.2	5.7
Travel and entertainment expenses	6.0	8.3
Specific and general bad debt provisions	6.0	0.1
Insurance premiums, contributions and fees	5.9	6.3
Cost of supporting activities to promote Frankfurt as a financial centre	4.9	5.0
Postage and transport costs	3.9	2.3
Licence fees paid to regional stock exchanges	0	53.4
Miscellaneous	14.2	14.7
<b>Total other operating expenses</b>	<b>471.6</b>	<b>487.9</b>

Legal and consulting costs relate mainly to expenses in conjunction with software development. An analysis of development costs is presented in note 7. Legal and consulting costs also contain costs of user support and software operation, as well as strategic and legal consulting services.

Premises expenses relate primarily to the costs of the Neue Börse and other buildings in Frankfurt leased by Deutsche Börse Group. Provision for anticipated losses from rental expenses has been established for rented buildings no longer used by Deutsche Börse Group. €2.8 million was utilized in 2001 (2000: €0.6 million), and a further net €0.7 million (2000: €0.7 million) was released.

Purchased IT services include the costs of external service providers who bill their services to Deutsche Börse Systems AG on an hourly basis.

Communication costs, which also include the costs of the participant network, fell by 12 percent in 2001 to around €36.6 million, although the number of Xetra and Eurex systems installed worldwide increased by 145 to 1,237 installations in over 20 countries. The prime reason for this was the redesign of the network structures. This resulted in a reduction in the number of access points maintained worldwide, the integration of new, more cost-effective connection options such as Common

Internet Access in the connection portfolio, and a reduction both in the number of redundant lines and in the transmission bandwidths required.

Non-recoverable input tax results from the VAT-free income from Eurex trading and clearing fees.

Xetra settlement fees are commissions paid to Clearstream Banking AG to settle trades on the Xetra electronic trading platform. Xetra charges its customers an “all-in” price, which includes these settlement fees.

Costs for the purchase of price information are incurred by the Information Products segment for data and information from other stock exchanges. These costs rose 20 percent to €19.7 million, due in particular to new contracts with EuroMTS Ltd. Overall, these variable costs are correlated with this segment’s revenues.

The cost of agency agreements relates to the costs of SWX Swiss Exchange, which renders services for the Eurex subgroup.

Miscellaneous other operating expenses are composed of smaller items, including various operating leases, office supplies, licence and maintenance fees, and donations.

## 12. Income from equity investments

The income from equity investments amounting to €58.0 million (2000: €73.2 million) is attributable to the following items:

	2001 €m	2000 €m
<b>Associates and joint ventures</b>		
Clearstream International S.A. (carried at equity)	41.5	52.5
Clearstream International S.A. (dividend)	14.5	8.8
European Energy Exchange AG (carried at equity)	0	4.1
European Energy Exchange AG (sale of shares)	0	0.6
STOXX Ltd. (carried at equity)	0.5	0.9
STOXX Ltd. (dividend)	0.3	0
Deutsche Gesellschaft für Ad hoc-Publizität mbH (dividend)	0.5	0.3
<b>Other equity investments</b>		
BrainTrade GmbH (dividend)	0.4	0
Cedel International S.A. (dividend)	0.2	0.2
<b>Subsidiaries</b>		
Deutsche Gesellschaft für Wertpapierabwicklung mbH (distribution)	0	5.4
Deutsche Gesellschaft für Wertpapierabwicklung mbH (dividend)	0.1	0.4
<b>Total income from equity investments</b>	<b>58.0</b>	<b>73.2</b>

### 13. Write-downs on long-term investments

Write-downs on long-term investments amounting to €12.6 million (2000: €6.1 million) relate to the proportionate recognition of the net losses of investees accounted for at equity.

### 14. Net financial income

Net financial income is composed of the following items:

	2001 €m	2000 €m
Income from current and noncurrent financial investments and long-term loans	4.0	0.2
Other interest and similar income	44.4	8.3
Interest and similar expenses	-7.3	-6.1
<b>Total net financial income</b>	<b>41.1</b>	<b>2.4</b>

Other interest and similar income is composed of the following items:

	2001 €m	2000 €m
Interest on foreign bank balances	42.3	7.2
Interest on nostro accounts	0.3	0.7
Interest on term deposits	1.2	0.3
Other interest income	0.6	0.1
<b>Total other interest and similar income</b>	<b>44.4</b>	<b>8.3</b>

Interest and similar expenses is composed of the following items:

	2001 €m	2000 €m
Interest on long-term loans	5.5	5.4
Interest on nostro accounts	0.4	0.5
Interest on tax arrears	1.4	0
Other interest expenses	0	0.2
<b>Total interest and similar expenses</b>	<b>7.3</b>	<b>6.1</b>

### 15. Extraordinary gains

Extraordinary gains in 2000 related to the €74.2 million difference between the acquisition cost and the proportionate higher equity capital of the 50 percent interest in Clearstream International S.A. as at 1 January 2000. The carrying amount of the investment was written up by this amount. The extraordinary gains did not affect taxes or cash flow.

## 16. Income tax expense

The following table presents the income tax expense:

	2001 €m	2000 €m
Current income taxes	81.3	78.2
Deferred taxes	34.9	-6.7
<b>Total income tax expense</b>	<b>116.2</b>	<b>71.5</b>

The income tax expense relates solely to the profit before tax from ordinary activities. A tax rate of 41 percent (2000: 41 percent) was used to calculate deferred taxes. This reflects trade income tax at an assessment rate of 490 percent (2000: 490 percent) on the tax base value of 5 percent (2000: 5 percent), corporation tax of 25 percent (2000: 25 percent) and 5.5 percent (2000: 5.5 percent) solidarity surcharge on the corporation tax.

The change in deferred taxes relates to the following items:

	2001 €m	2000 €m
Intangible assets	17.7	-8.8
Taxes on IPO costs	15.1	0
Current financial investments	1.2	-4.7
Provision for anticipated losses from rental expenses	0.8	2.6
Provision for jubilee benefits	0.2	0.4
Equity investments	0.1	1.2
Provisions for early retirement benefits	0	0.4
Pension provision, provision for pension obligations to IHK	-0.2	2.3
Other provisions	0	-0.1
<b>Deferred tax expense/income</b>	<b>34.9</b>	<b>-6.7</b>

The following table presents the deferred tax assets and liabilities recognized in the balance sheet, as well as the deferred taxes for the year. Changes taken directly to equity relate to deferred taxes on changes in the measurement of long-term investments that are marked-to-market, as well as deferred taxes on the costs of the IPO.

	2001 €m	2000 €m
<b>Balance as at 1 January</b>		
Deferred tax assets	10.0	15.8
Deferred tax liabilities	-28.7	-41.0
	<b>-18.7</b>	<b>-25.2</b>
Deferred taxes taken directly to equity	17.5	-0.2
Deferred tax expense/income for the year	-34.9	6.7
First-time consolidation	-0.3	0
<b>Balance as at 31 December</b>		
Deferred tax assets	11.2	10.0
Deferred tax liabilities	-47.6	-28.7
	<b>-36.4</b>	<b>-18.7</b>

The following table presents a reconciliation between the expected and the actual tax expense. To determine the expected tax expense, the profit before tax has been multiplied by the composite tax rate of 41 percent expected for 2001 (2000: 46 percent).

	2001 €m	2000 €m
Expected income taxes derived from net profit before taxes	130.9	134.3
Non-tax deductible losses carried forward	5.4	0
Risk provisions	3.0	0
Tax increases due to non-tax deductible expenses	0.4	0.3
Tax reduction due to dividends and income from foreign equity investments carried at equity	-22.9	-62.0
Effect of tax rate changes	0	-1.8
Miscellaneous	-0.6	0.7
<b>Actual tax expense</b>	<b>116.2</b>	<b>71.5</b>

## Notes to the consolidated balance sheet

### 17. Statement of changes in noncurrent assets

	Historical cost					
	Balance as at 1 Jan. 2001	Additions €m	Reclassifications/ revaluation €m	Disposals €m	Additions from first-time consolidation €m	Balance as at 31 Dec. 2001 €m
<b>Intangible assets</b>						
Software	328.2	88.1	20.0	0.6	2.9	438.6
Goodwill	23.5	0	0	0	51.5	75.0
Payments on account	20.1	0.7	-20.0	0	0	0.8
	<b>371.8</b>	<b>88.8</b>	<b>0</b>	<b>0.6</b>	<b>54.4</b>	<b>514.4</b>
<b>Plant and equipment</b>						
Leasehold improvements	17.4	1.7	0	0.2	0	18.9
Computer hardware, operating and office equipment	146.7	17.1	0	20.6	6.3	149.5
Payments on account and construction in progress	0	0.4	0	0	0	0.4
	<b>164.1</b>	<b>19.2</b>	<b>0</b>	<b>20.8</b>	<b>6.3</b>	<b>168.8</b>
<b>Long-term investments</b>						
Investments in subsidiaries	8.1	0.1	0	0	0.2	8.4
Investments in associates: Clearstream International S.A.	319.1	0.6	50.5	0	0	370.2
Investments in associates: others	35.9	9.6	0.5	0	-13.8	32.2
Other equity investments	2.5	0	0	0	0	2.5
Noncurrent financial investments	35.3	0	0	0	0	35.3
Other long-term loans	1.5	0.1	0	0.1	0	1.5
	<b>402.4</b>	<b>10.4</b>	<b>51.0</b>	<b>0.1</b>	<b>-13.6</b>	<b>450.1</b>
<b>Total noncurrent assets</b>	<b>938.3</b>	<b>118.4</b>	<b>51.0</b>	<b>21.5</b>	<b>47.1</b>	<b>1,133.3</b>

**Cumulative depreciation and amortization****Carrying amount****Balance as at  
1 Jan. 2001****Additions****Disposals****Additions from  
first-time  
consolidation****Balance as at  
31 Dec. 2001****31 Dec. 2001****31 Dec. 2000****€m****€m****€m****€m****€m****€m****€m**

174.3	55.7	0.6	1.5	230.9	207.7	153.9
23.5	0.2	0	0	23.7	51.3	0
0	0	0	0	0	0.8	20.1
<b>197.8</b>	<b>55.9</b>	<b>0.6</b>	<b>1.5</b>	<b>254.6</b>	<b>259.8</b>	<b>174.0</b>
2.0	1.9	0.2	0	3.7	15.2	15.4
97.6	25.5	19.1	3.8	107.8	41.7	49.1
0	0	0	0	0	0.4	0
<b>99.6</b>	<b>27.4</b>	<b>19.3</b>	<b>3.8</b>	<b>111.5</b>	<b>57.3</b>	<b>64.5</b>
7.0	0	0	0.2	7.2	1.2	1.1
0	0	0	0	0	370.2	319.1
13.1	12.6	0	-6.1	19.6	12.6	22.8
0	0	0	0	0	2.5	2.5
0.5	2.7	0	0	3.2	32.1	34.8
0	0	0	0	0	1.5	1.5
<b>20.6</b>	<b>15.3</b>	<b>0</b>	<b>-5.9</b>	<b>30.0</b>	<b>420.1</b>	<b>381.8</b>
<b>318.0</b>	<b>98.6</b>	<b>19.9</b>	<b>-0.6</b>	<b>396.1</b>	<b>737.2</b>	<b>620.3</b>

### **Intangible assets**

Additions and reclassifications of software relate principally to the expansion of the Eurex and Xetra electronic trading systems and to the development of software products for the Information Products segment. Payments on account relate primarily to advance payments on software.

Capitalized development costs include the costs of in-progress development at 31 December 2001 amounting to €47.5 million (2000: €17.1 million).

Write-downs are charged where necessary and are subsequently reversed if the original reasons no longer apply. Write-downs of €2.7 million (2000: €12.3 million) were charged on the Index Engine software in 2001. Write-downs in 2000 related primarily to changes in the Fixed Income Benchmark system.

### **Plant and equipment**

Additions to computer hardware, operating and office equipment fell in 2001 as against the prior-year period, as additions in 2000 related primarily to investments in facilities for the Neue Börse complex.

### **Long-term investments**

The carrying amount at 31 December 2001 of investments in associates and joint ventures that are accounted for at equity in accordance with IAS 31.32 was €382.6 million (2000: €341.7 million).

As available-for-sale financial assets, noncurrent financial investments are carried at their fair values. Gains or losses on noncurrent financial investments are reported in the revaluation surplus in the statement of changes in shareholders' equity. In 2001, losses of €2.1 million (2000: gains of €1.3 million) were charged (credited) directly to the revaluation surplus.

## **18. Receivables and other assets**

Specific valuation allowances of €5.5 million (2000: €0.1 million) were charged on receivables in 2001. Of this total, €4.0 million related to two customers.

As at 31 December 2001, there were no trade receivables with more than one year to maturity (2000: €1.0 million). €2.3 million (2000: €1.5 million) of the other assets related to the capitalized surrender values of reinsurance policies with more than one year to maturity.

Intragroup receivables relate to Fördergesellschaft für Börsen und Finanzmärkte in Mittel- und Osteuropa mbH.

Other assets relate primarily to recoverable taxes and prepayments.

## 19. Current financial investments

As available-for-sale financial assets, current financial investments are carried at their fair values. Gains on current financial investments were recognized in income.

## 20. Cash and bank balances

Cash deposits by Eurex participants, which are reported separately under current liabilities, are invested at banks.

## 21. Deferred tax assets

In accordance with IAS 12, deferred tax assets are recognized for temporary differences between the carrying amounts in the IAS financial statements and in the tax accounts. The deferred tax assets are computed using the tax rates expected to be enacted when the temporary differences reverse (liability method).

Deferred tax assets resulting from differences between the carrying amounts in the IAS consolidated financial statements and in the tax accounts are composed of the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Provision for anticipated losses from rental expenses	5.6	6.5
Pension provision, provision for pension obligations to IHK	3.4	3.2
Interest rate swaps	1.6	0
Consolidated companies	0.5	0
Provision for early retirement benefits	0.1	0.1
Provision for jubilee benefits	0	0.2
<b>Total deferred tax assets</b>	<b>11.2</b>	<b>10.0</b>

Deferred tax assets on the measurement of the interest rate swaps were recognized directly in equity.

## 22. Shareholders' equity

Changes in shareholders' equity are presented in the statement of changes in shareholders' equity.

Deutsche Börse AG went public on 5 February 2001. A total of 2,936,000 shares, including a greenshoe registered on 22 February, were issued at an issue price of €335 each. The issue proceeds accruing to the Company amounted to €983.6 million, less the costs totalling €36.8 million incurred in connection with the IPO. This increased the share capital of Deutsche Börse AG from €18.8 million to €26.3 million, composed of 10,276,000 no-par value shares. The share premium rose from €44.8 million to €999.2 million.

Following the resolution adopted by the General Meeting on 3 May 2001, the Company's share capital was increased by €76.5 million from €26.3 million to €102.8 million by transferring €53.7 million from the share premium and €22.8 million from retained earnings. Immediately after this capital increase, the Company's no-par value shares had a notional value of €10.00 each. The number of no-par value shares was increased by a 10-for-1 stock split on 1 June 2001 from 10,276,000 to 102,760,000.

At the General Meeting, the shareholders approved a resolution to increase Authorized Capital I and Authorized Capital II. The Executive Board is correspondingly authorized, with the consent of the Supervisory Board, to increase the subscribed capital by up to €41,104,000 (Authorized Capital I), and by a further €10,276,000 (Authorized Capital II) by issuing new no-par value registered shares against cash and/or non-cash contributions. The Executive Board is also authorized, with the consent of the Supervisory Board, to exclude shareholders' subscription rights where Authorized Capital I is raised against non-cash contributions for the purpose of acquiring companies, parts of companies or interests in companies. The Executive Board is authorized to exclude shareholders' subscription rights to the Authorized Capital II in order to issue new shares against cash contributions at an issue price that is not materially lower than the market price.

There were no further subscription rights for shares at either 31 December 2001 or 31 December 2000.

The revaluation surplus results from the remeasurement of noncurrent financial investments at their fair values.

### **23. Shareholders' equity of Deutsche Börse AG, appropriation of net profit**

The annual financial statements of the parent company Deutsche Börse AG, prepared as at 31 December 2001 in accordance with the provisions of the HGB, and for which an unqualified audit opinion has been granted, report net income for the year of €116.6 million (2000: €83.6 million) and shareholders' equity of €1,271.7 million (2000: €202.4 million).

	31 Dec. 2001 €m	31 Dec. 2000 €m
Share capital	102.8	18.8
Capital reserves	978.7	56.3
Other revenue reserves	130.2	85.5
Unappropriated surplus	60.0	41.8
<b>Shareholders' equity</b>	<b>1,271.7</b>	<b>202.4</b>

At the time of preparation of the annual financial statements, €56.6 million was appropriated to revenue reserves in 2001 (2000: €41.8 million). The Executive Board proposes that the unappropriated surplus amounting to €60.0 million reported in the annual financial statements of Deutsche Börse AG be appropriated as follows:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Distribution of a dividend to the shareholders on 16 May 2002 of €0.36 per share for 102,760,000 shares (in 2001 from net profit for 2000: €0.30)	37.0	30.8
Appropriation to revenue reserves	23.0	11.0
<b>Unappropriated surplus</b>	<b>60.0</b>	<b>41.8</b>

## 24. Minority interests

Minority interests include the equity interest and proportionate interest in consolidated net profit (where consolidated) of the Eurex Zürich AG (incl. Eurex Bonds GmbH) and entory AG subgroups.

	31 Dec. 2001 €m	31 Dec. 2000 €m
Minority interests in entory AG	4.7	0
Minority interests of SWX Swiss Exchange and other shareholders (non-Group members of the Board of Directors) in Eurex Zürich AG	3.9	4.3
Minority interests in Eurex Bonds GmbH	2.0	0
<b>Total minority interests</b>	<b>10.6</b>	<b>4.3</b>

## 25. Provisions

The composition and development of provisions are presented in the following statement of changes in provisions:

	31 Dec. 2000 €m	Utilized €m	Released €m	Appropriated €m	First-time consolidation €m	31 Dec. 2001 €m
<b>Long-term provisions</b>						
Provision for pensions and other employee benefits	24.5	0	0	4.1	2.6	31.2
Deferred tax liabilities	28.7	0	0	18.1	0.8	47.6
Other long-term provisions	31.1	-3.0	-3.3	1.5	0	26.3
	<b>84.3</b>	<b>-3.0</b>	<b>-3.3</b>	<b>23.7</b>	<b>3.4</b>	<b>105.1</b>
<b>Short-term provisions</b>						
Tax provisions	58.0	-47.6	-1.9	16.9	1.5	26.9
Other short-term provisions	8.7	-3.2	-3.5	20.0	3.4	25.4
	<b>66.7</b>	<b>-50.8</b>	<b>-5.4</b>	<b>36.9</b>	<b>4.9</b>	<b>52.3</b>
<b>Total provisions</b>	<b>151.0</b>	<b>-53.8</b>	<b>-8.7</b>	<b>60.6</b>	<b>8.3</b>	<b>157.4</b>

## 26. Provision for pensions and other employee benefits

The pension plans consist mainly of direct commitments under direct benefit plans. To standardize retirement provision, the existing pension plans were closed effective 30 June 1999, and a new deferred compensation plan was introduced effective 1 July 1999. Provisions are set up to cover obligations from current pensions and entitlements to future pensions payable. Future obligations are measured using the projected unit credit method in accordance with IAS 19. The obligations are measured at each annual balance sheet date on the basis of actuarial methods and conservative estimates of the relevant parameters. The expected retirement benefits reflect future wage and salary increases and are spread across the remaining period of service of the employees. No fluctuation probabilities are recognized. The computation is based on the 1998 mortality tables produced by Prof. Dr. Klaus Heubeck. Calculation of the actuarial obligations for the pension plans is based on the following assumptions.

	Deutsche Börse Group excl. entory Group 31 Dec. 2001 %	entory Group 31 Dec. 2000 %	entory Group 31 Dec. 2001 %
Discount rate	6.0	6.0	5.7
Salary increase	3.5	3.5	5.2
Pension increase	2.0	2.0	1.0

The provision for pensions and other employee benefits contains provision for early retirement payments granted and obligations from pension payment reimbursements to the IHK (chamber of commerce and industry). Changes in these pensions were as follows:

	2001 €m	2000 €m
Balance as at 1 January	24.5	47.6
Past service cost	3.1	0
First-time consolidation	2.6	0
Interest expense	1.5	1.3
Current service cost	1.1	1.3
Transferred assets	0	-0.6
Removal of Deutsche Börse Clearing AG from the consolidation	0	-24.7
Current benefit payments	-1.6	-0.4
<b>Provision for pensions and other employee benefits as at 31 December</b>	<b>31.2</b>	<b>24.5</b>

There were no extraordinary gains or losses from the closure of pension plans or due to the curtailment and transfer of pension benefits in the year under review.

## 27. Deferred tax liabilities

Deferred tax liabilities are composed of the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Intangible assets	42.1	24.4
Noncurrent financial investments	2.4	3.2
Investments in associates	1.1	1.1
Current financial investments	1.2	0
Consolidated companies	0.8	0
<b>Total deferred tax liabilities</b>	<b>47.6</b>	<b>28.7</b>

The deferred tax liabilities recognized from the measurement of noncurrent financial investments are taken directly to equity.

## 28. Other long-term provisions

Other long-term provisions with more than one year to maturity comprise the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Provision for anticipated losses from rental expenses	13.8	15.9
Provision for pension obligations to IHK	9.6	9.6
Provision for early retirement benefits	2.6	5.2
Miscellaneous other long-term provisions	0.3	0.4
<b>Total other long-term provisions</b>	<b>26.3</b>	<b>31.1</b>

The long-term provisions that are not expected to be settled until 2003 and thereafter are discounted at the rate of 5.5 percent.

## 29. Tax provisions

The tax provisions contain the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Income tax expense: previous years	8.2	4.6
Income tax expense: current year	17.1	49.1
Foreign income taxes	0.8	3.0
VAT: previous years	0.8	1.3
<b>Total tax provisions</b>	<b>26.9</b>	<b>58.0</b>

### **30. Other short-term provisions**

The other short-term provisions are composed of the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Litigation and interest rate risks	12.0	5.2
Rent and incidental rental costs	6.6	0.2
Jubilee benefits	1.1	1.0
Miscellaneous	5.7	2.3
<b>Total other short-term provisions</b>	<b>25.4</b>	<b>8.7</b>

The provision for litigation and interest rate risks was increased due to higher potential litigation costs. The group management report contains disclosures on significant ongoing law suits. The miscellaneous other short-term provisions are composed principally of provisions for operating cost subsidies, severance payments and payroll tax obligations.

### **31. Liabilities**

Liabilities amounting to €5.8 million arising from the purchase of entory AG are not due until 2003. As at 31 December 2001, closing out two interest rate swaps would have incurred costs of €3.8 million. The interest rate swaps have terms of up to nine years. Other noncurrent liabilities amounting to €1.5 million arise from the virtual stock option program.

Bank loans amounting to €80.0 million (2000: €90.0 million) have more than one year to maturity; €40.0 million (2000: €50.0 million) of this amount has a remaining maturity of one to five years. No collateral has been furnished. As Deutsche Börse AG exercised its option to redeem these bank loans in full on 10 January 2002, the loans were reported as current liabilities.

All other liabilities have less than one year to maturity.

### **32. Cash deposits by Eurex participants**

The liabilities from cash deposits are liabilities of Eurex Clearing AG from margin payments by clearing members of the Eurex derivatives exchange.

### 33. Other current liabilities

The other current liabilities are composed of the following items:

	31 Dec. 2001 €m	31 Dec. 2000 €m
Loan interest payable	5.7	5.4
Tax liabilities	8.1	11.2
Vacation entitlements, flexitime and overtime credits	7.8	6.9
Debtors with credits	5.6	11.5
Special payments and bonuses	6.8	10.2
Reimbursements	4.3	3.9
Reimbursement of Eurex transaction fees	3.0	9.3
Deferred income	2.3	0.2
Liabilities from purchase of shares of entory AG	2.0	0
Miscellaneous	12.6	8.9
<b>Total other current liabilities</b>	<b>58.2</b>	<b>67.5</b>

The miscellaneous other current liabilities are composed principally of accruals for products or services that had already been delivered or rendered, but for which no invoice had yet been received.

## Notes to the cash flow statement

### 34. Disclosures on the cash flow statement

The cash flow statement presents the balance of and changes in Deutsche Börse Group's cash and cash equivalents. In compliance with IAS 7 (Cash Flow Statements), cash flows are classified by operating, investing and financing activities. Cash and cash equivalents are composed of cash, bank balances, receivables and liabilities from the banking business (less liabilities from cash deposits by Eurex participants and current bank loans and overdrafts) as well as near-cash money market and capital market instruments classified as current financial investments.

Deutsche Börse AG acquired a 52 percent interest in entory AG in December 2001 for €50.9 million, so entory AG's balance sheet has been fully consolidated at the year-end. The purchase price falling due in 2001 is disclosed under investing activities in the cash flow statement. The movements in balance sheet items were calculated excluding those of entory AG.

### 35. Restrictions on cash and cash equivalents

There are no restrictions on the availability of cash and cash equivalents.

### 36. Cash flows from operating activities

After adjustments to net profit for the period for non-cash items and the inclusion of net financial income, cash flows from operating activities amounted to €248.8 million (2000: €101.5 million). The entire cash provided by net financial income (net interest and investment income) is allocated to operating activities. DVFA/SG cash flow was €282.6 million (2000: €135.6 million).

Depreciation and amortization expense contains the following items:

	2001 €m	2000 €m
Amortization of intangible assets and depreciation of plant and equipment	83.3	83.1
Amortization of long-term investments	13.2	9.7
<b>Total depreciation and amortization expense</b>	<b>96.5</b>	<b>92.8</b>

The decrease in long-term provisions can be explained as follows:

	Balance as at 31 Dec. 2000 €m	Increase/ (decrease) on cash flow statement €m	First-time consolidation and other adjustments €m	Balance as at 31 Dec. 2001 €m
Provisions for pensions and other employee benefits	24.5	4.1	2.6	31.2
Other long-term provisions	31.1	-4.8	0	26.3
<b>Decrease in long-term provisions</b>		<b>-0.7</b>		

Other non-cash income and expense results from the following items:

	2001 €m	2000 €m
<b>Measurement at equity:</b>		
Clearstream International S.A.	41.5	52.5
STOXX Ltd.	0.5	0.9
European Energy Exchange AG	0	4.1
Extraordinary gains	0	74.2
Specific and general bad debt provisions	-6.0	0.1
Miscellaneous	0	0.3
<b>Other non-cash income and expense</b>	<b>36.0</b>	<b>132.1</b>

The decrease in receivables and other assets can be explained as follows:

	Balance as at 31 Dec. 2000 €m	Increase/ (decrease) on cash flow statement €m	First-time consolidation and other adjustments €m	Balance as at 31 Dec. 2001 €m
Trade receivables	116.8	-13.4	9.3	112.7
Intragroup receivables	1.1	-0.8	0.5	0.8
Associate receivables	8.4	-6.2	0	2.2
Receivables from other investees	0	2.9	0	2.9
Other assets	25.5	12.8	3.1	41.4
<b>Decrease in receivables and other assets</b>		<b>-4.7</b>		

The increase in short-term provisions is composed of the following items:

	Balance as at 31 Dec. 2000 €m	Increase on cash flow statement €m	First-time consolidation and other changes €m	Balance as at 31 Dec. 2001 €m
Other short-term provisions	8.7	13.3	3.4	25.4
<b>Increase in short-term provisions</b>		<b>13.3</b>		

The decrease in current liabilities can be explained as follows:

	Balance as at 31 Dec. 2000 €m	Increase/ (decrease) on cash flow statement €m	First-time consolidation and other adjustments €m	Balance as at 31 Dec. 2001 €m
Trade payables	71.1	-6.6	5.7	70.2
Investee payables	13.4	-0.8	0	12.6
Other liabilities	67.5	-13.9	4.6	58.2
<b>Decrease in current liabilities</b>		<b>-21.3</b>		

### 37. Cash flows from investing activities

Cash of €113.0 million (2000: €253.2 million) used in investing activities resulted from purchases of intangible assets amounting to €88.8 million (2000: €73.5 million), purchases of plant and equipment amounting to €19.2 million (2000: €55.4 million) and purchases of long-term investments amounting to €5.0 million (2000: €124.3 million). Other investments in long-term investments amounting to €5.4 million (2000: €0) had no cash effect. In addition, €48.9 million was paid up to 31 December 2001 for shares of entory AG. The cash provided by disposals of noncurrent assets amounted to €1.2 million (2000: €0.9 million).

### **38. Cash flows from financing activities**

The proceeds of the IPO, less costs incurred, amounted to €961.8 million. A dividend of €30.8 million was paid for 2000 (in 2000 for 1999: €58.7 million). Long-term loans amounting to €100.0 million were raised in January 2000 to finance the combination of the business operations of Cedel International S.A. and Deutsche Börse Clearing AG to form Clearstream International S.A. €10.0 million of these loans was repaid on schedule in January 2001.

### **39. Reconciliation to cash and cash equivalents**

Liquidity	31 Dec. 2001 €m	31 Dec. 2000 €m
Cash and bank balances	916.9	140.6
Current financial investments	302.9	0
	<b>1,219.8</b>	<b>140.6</b>
<b>Reconciliation to cash and cash equivalents</b>		
Current receivables from banking business	6.9	0
Current liabilities on Eurex participants' cash deposits	-164.7	-71.1
Current bank loans and overdrafts	0	-24.5
	<b>-157.8</b>	<b>-95.6</b>
<b>Cash and cash equivalents</b>	<b>1,062.0</b>	<b>45.0</b>

Bank balances include €13.4 million (2000: €12.0 million) held at central banks.

### **Other disclosures**

#### **40. DVFA/SG earnings and earnings per share**

In accordance with IAS 33, earnings per share are calculated by dividing the net profit for the year by the weighted average number of shares outstanding. Earnings per share are calculated by dividing consolidated net profit for the period by the weighted average number of shares outstanding. The number of shares increased from 7,340,000 at the beginning of the year to 10,276,000 following the IPO on 5 February 2001, and again on 1 June 2001 by a 10-for-1 stock split to 102,760,000.

There were no further rights to subscribe for shares that could have potentially diluted earnings per share at either 31 December 2001 or 31 December 2000.

Earnings according to the methodology published by the Deutsche Vereinigung für Finanzanalyse und Anlageberatung e.V. and the Schmalenbach-Gesellschaft (DVFA/SG) were calculated as follows:

	2001 €m	2000 €m
Net profit	203.0	220.5
Elimination of extraordinary gains	0	-74.2
Elimination of gains on the sale of shares	0	-0.6
Elimination of income from subsidiaries paid from the distribution of reserves	0	-5.4
Elimination of write-downs on investments in subsidiaries	0	3.0
Minority interests in net profit	0.7	-0.4
<b>DVFA/SG earnings</b>	<b>203.7</b>	<b>142.9</b>

Earnings per share were calculated as follows:

	2001	2000
Number of shares of Deutsche Börse AG at 31 December	102,760,000	73,400,000 <sup>1)</sup>
Average number of shares	99,763,014	73,400,000 <sup>1)</sup>
Earnings per share (€)	2.03	3.00 <sup>1)</sup>
DVFA/SG earnings per share (€)	2.04	1.95 <sup>1)</sup>
Dividend distributed to shareholders (€m)	37.0 <sup>2)</sup>	30.8
Dividend per share (€)	0.36 <sup>2)</sup>	0.30 <sup>1)</sup>

<sup>1)</sup> Adjusted for the 10-for-1 stock split implemented on 1 June 2001

<sup>2)</sup> Proposal for 2001

## 41. Segment reporting

Segment reporting is governed by the internal organizational and reporting structure, which is broken down by markets and services into the Xetra, Eurex, Information Products, Xlaunch, Systems, Corporate Services and Settlement segments.

Segment	Activity
Xetra	Cash market: electronic order book and floor trading
Eurex	Derivatives exchange
Information Products	Sales of price information and information distribution
Xlaunch	Consulting and establishment of B2B marketplaces
Systems	Systems and service provider
Corporate Services	Group strategy, provision of centralized functions for the other segments
Settlement	Processing and administration of securities

Sales revenue is presented separately by external sales revenue and internal (inter-segment) revenue. Intercompany transactions are recognized on the basis of fair market value.

Deutsche Börse Group uses earnings before interest and taxes (EBIT) as a key internal earnings indicator that also serves as an indicator of a segment's long-term earnings power.

**Segment reporting for the period 1 January to 31 December**

	Xetra		Eurex		Information Products		Xlaunch	
	2001 €m	2000 €m	2001 €m	2000 €m	2001 €m	2000 €m	2001 €m	2000 €m
External sales revenue	243.1	277.8	268.8	160.4	109.9	82.5	2.4	0
Internal sales revenue	0.5	12.1	0	0	4.9	3.7	0	0
<b>Total sales revenue</b>	<b>243.6</b>	<b>289.9</b>	<b>268.8</b>	<b>160.4</b>	<b>114.8</b>	<b>86.2</b>	<b>2.4</b>	<b>0</b>
Own expenses capitalized	11.6	10.3	38.8	2.9	10.5	13.9	0	0
Other operating income	16.9	17.2	54.1	64.0	1.9	0.4	0	0
Staff costs	-19.0	-15.9	-13.6	-12.5	-7.7	-7.2	-1.3	0
Depreciation and amortization expense	-31.2	-25.5	-9.9	-9.4	-7.6	-13.2	0	0
Other operating expenses	-183.1	-191.1	-229.1	-198.3	-94.3	-72.1	-7.0	-2.4
<b>Total expenses</b>	<b>-233.3</b>	<b>-232.5</b>	<b>-252.6</b>	<b>-220.2</b>	<b>-109.6</b>	<b>-92.5</b>	<b>-8.3</b>	<b>-2.4</b>
Income from equity investments	0.5	0	0	4.7	1.3	1.2	0	0
Write-downs on equity investments	-0.9	-2.4	-9.8	-1.4	-1.9	-2.4	0	0
<b>Earnings before interest and taxes (EBIT)</b>	<b>38.4</b>	<b>82.5</b>	<b>99.3</b>	<b>10.4</b>	<b>17.0</b>	<b>6.8</b>	<b>-5.9</b>	<b>-2.4</b>
Net financial income	-0.1	0	7.7	6.5	0	0	0	0
Profit before tax from ordinary activities	38.3	82.5	107.0	16.9	17.0	6.8	-5.9	-2.4
Assets	138.3	143.1	295.3	181.6	63.1	49.6	0.4	2.8
Provisions and liabilities	31.4	39.2	208.6	116.1	20.5	15.2	0.4	0.4
Net assets	106.9	103.9	86.7	65.5	42.6	34.4	0	2.4
Investments in intangible assets, plant and equipment	28.5	31.8	39.5	3.3	14.7	27.3	0.1	0
Employees as at 31 December	194	174	116	86	84	72	8	2
<b>Key ratio: EBIT/Sales revenue<sup>11</sup></b>	<b>15.8%</b>	<b>29.7%</b>	<b>36.9%</b>	<b>6.5%</b>	<b>15.5%</b>	<b>8.2%</b>	<b>-</b>	<b>-</b>

<sup>11</sup> External sales revenue except for the Systems segment, where internal sales are also included to calculate the figure

**The reconciliation shows:**

- elimination of intercompany sales revenue and expenses
- assets not attributable to the segments (long-term investments less equity investments carried at equity, deferred tax assets) and certain liabilities (minority interests, tax provisions, deferred tax liabilities)

Systems		Licence fees passed-through		Corporate Services		Settlement		Total for all segments		Reconciliation		Group	
2001 €m	2000 €m	2001 €m	2000 €m	2001 €m	2000 Mio. €	2001 €m	2000 €m	2001 €m	2000 €m	2001 €m	2000 €m	2001 €m	2000 €m
136.1	116.2		65.4					760.3	702.3			760.3	702.3
229.7	243.7							235.1	259.5	-235.1	-259.5		
<b>365.8</b>	<b>359.9</b>		<b>65.4</b>					<b>995.4</b>	<b>961.8</b>	<b>-235.1</b>	<b>-259.5</b>	<b>760.3</b>	<b>702.3</b>
1.7	3.9							62.6	31.0			62.6	31.0
14.4	21.6			113.2	123.6			200.5	226.8	-123.2	-131.1	77.3	95.7
-48.2	-48.7			-22.2	-20.7			-112.0	-105.0			-112.0	-105.0
-28.4	-28.5			-6.2	-6.6			-83.3	-83.1			-83.3	-83.1
-211.9	-234.4			-65.4	-104.5	-114.7		-829.9	-878.5	358.3	390.6	-471.6	-487.9
<b>-288.5</b>	<b>-311.6</b>		<b>-65.4</b>	<b>-132.9</b>	<b>-142.0</b>			<b>-1,025.2</b>	<b>-1,066.6</b>	<b>358.3</b>	<b>390.6</b>	<b>-666.9</b>	<b>-676.0</b>
0	0			5.8	56.2	61.5		58.0	73.2			58.0	73.2
0	0			-0.6	-3.5			-13.2	-9.7			-13.2	-9.7
<b>93.4</b>	<b>73.8</b>		<b>0</b>	<b>-20.3</b>	<b>-16.1</b>	<b>56.2</b>	<b>61.5</b>	<b>278.1</b>	<b>216.5</b>	<b>0</b>	<b>0</b>	<b>278.1</b>	<b>216.5</b>
-1.0	0.1			40.1	1.2	-5.6	-5.4	41.1	2.4			41.1	2.4
92.4	73.9			19.8	-14.9	50.6	56.1	319.2	218.9			319.2	218.9
150.1	111.2			1,052.3	64.6	370.2	319.2	2,069.7	872.1	65.5	50.6	2,135.2	922.7
83.8	85.4			45.5	50.3	95.5	105.4	485.7	412.0	89.2	90.9	574.9	502.9
66.3	25.8			1,006.8	14.3	274.7	213.8	1,584.0	460.1	-23.7	-40.3	1,560.3	419.8
19.7	45.7			5.5	20.9			108.0	129.0			108.0	129.0
536	494			185	173			1,123	1,001			1,123	1,001
<b>25.5%</b>	<b>20.5%</b>			-	-	-	-	-	-			<b>36.6%</b>	<b>30.8%</b>

Write-downs of €2.7 million (2000: €12.3 million) resulted mainly from the Information Products segment. Specific write-downs on receivables amounting to a total of €5.5 million (2000: €0.1 million) resulted from the following segments: Information Products €3.4 million, Systems €1.8 million and Xetra €0.3 million.

Assets and liabilities are allocated to the individual segments on the basis of objective criteria. Assets that cannot be allocated to the segments, as well as minority interests, are disclosed in the reconciliation column. The assets of entory AG were allocated to the Systems segment as at 31 December 2001.

The primary segments were not classified further into secondary segments (geographical segments), because Deutsche Börse Group's business model, and in particular that of its Xetra, Eurex and Information Products segments, is focused on an internationally operating participant base. This means that it is unimportant whether revenues are generated from German or non-German participants.

#### **42. Acquisition of entory AG**

The shareholders of entory AG resolved in December 2001 to accept a purchase offer by Deutsche Börse AG. Due to a phased earn-out component, the total purchase price amounts to between €94.5 million and €110.5 million, plus transaction costs of €1.9 million.

In December 2001, Deutsche Börse AG acquired 52 percent of the shares of entory AG at a price of €50.9 million excluding the earn-out component. In the first quarter of 2002, a further 44 percent was acquired at a price of €37.8 million without an earn-out component; the remaining shares will be acquired during the course of 2002. Options on entory AG shares to which entory employees are entitled in accordance with two stock option plans from 1999 and 2001 will also be acquired in 2002.

The earn-out component is contingent on four conditions: sales revenue in both 2002 and the first quarter of 2003, the allocation of sales revenue to certain products; and profitability in 2002. The earn-out component will be calculated and paid out to the former shareholders of entory AG in September 2003 only if minimum levels have been satisfied for all four conditions.

entory AG had equity of €9.8 million as at 31 December 2001. The acquisition of a 52 percent interest in entory AG produced goodwill of €51.5 million as at 31 December 2001, which will be amortized over 20 years. The additional purchase of the minority interests will further increase this goodwill in 2002.

In 2001, the entory Group generated earnings before interest and taxes (EBIT) of €2.1 million from sales revenue of €99.1 million. This profit was depressed by expenses of €1.4 million for a planned IPO and the closure of a US subsidiary. In 2001, the entory Group recorded a net profit in accordance with IASs of €1.6 million.

### 43. Credit lines

The Group companies had the following credit lines as at 31 December 2001, none of which had been drawn down:

Company	Purpose of credit line	Amount in €m
Deutsche Börse AG	Working capital	- interday 35
Eurex Clearing AG	Working capital	- interday 20
	Eurex settlement <sup>1)</sup>	- intraday 700
	Eurex settlement <sup>1)</sup>	- interday 350

<sup>1)</sup> Credit lines for risks from the settlement of transactions for the Eurex companies

Moody's Investors Service has awarded Deutsche Börse AG a long-term credit rating of Aa1.

A Multi-Currency Commercial Paper Program was established in December 2001. This program, which offers Deutsche Börse Group an opportunity for flexible and short-term financing at favorable terms, involves a total facility of €2.5 billion in various currencies. No drawdowns had been made against the program by 31 December 2001.

### 44. Off-balance-sheet contingencies and commitments

#### Eurex Clearing AG

According to the "Clearing Conditions for Trading at Eurex Deutschland and Eurex Zürich", transactions on the Eurex exchanges must be executed between Eurex Clearing AG and a clearing member. Deutsche Börse AG has issued a comfort letter with an unlimited term in favor of Eurex Clearing AG, by which Deutsche Börse AG undertakes to provide Eurex Clearing AG with 80 percent of the funds it needs to meet its obligation as the central counterparty to settle derivatives contracts traded on Eurex.

To safeguard against possible losses from any default by its contracting parties, the clearing conditions, as most recently amended on 18 January 2001, provide for certain conditions of membership. Among other things, each clearing member must provide cash or securities collateral to secure its entire contractual obligations each exchange day in the amount stipulated by Eurex Clearing AG. The institutions must also provide clearing guarantees as the basis for the clearing business.

The risk inherent in the executed trades in the event of default by a contracting party was valued at €9,246 million (2000: €7,757 million) at the balance sheet date.

The risk is offset by collateral in the amount of €14,108 million (2000: €11,116 million), composed as follows:

	31 Dec. 2001 Carrying amount €m	31 Dec. 2000 Carrying amount €m	31 Dec. 2001 Fair value €m	31 Dec. 2000 Fair value €m
Cash collateral (cash deposits)	164.7	71.1	164.7	71.1
Securities and book-entry securities collateral	13,942.8	11,044.8	18,170.2	16,866.0
<b>Total collateral</b>	<b>14,107.5</b>	<b>11,115.9</b>	<b>18,334.9</b>	<b>16,937.1</b>

There were also third-party bank guarantees for clearing members of Eurex Clearing AG amounting to €264 million at the year-end (2000: €246 million).

### **Clearstream Banking AG**

Deutsche Börse AG and Cedel International S.A. have issued an unlimited letter of comfort for Clearstream Banking AG in accordance with section 5 (10) of the statutes of the Einlagensicherungsfonds (deposit insurance fund), by which Deutsche Börse AG and Cedel International S.A. have undertaken to indemnify Bundesverband Deutscher Banken e.V. against all losses.

### **45. Financial risk management**

Deutsche Börse Group's cash reserves are invested in euros, mostly in money market instruments with very high credit quality. The instruments used principally comprise term money deposits with prime-rated banks protected by German deposit insurance funds or third-party bank guarantees, and shares in money market funds where the credit risk is very low due to the high credit rating and the diversification of fund securities. The systematic use of market information systems also enables Deutsche Börse Group to take countermeasures at an early stage if risks arise.

### **46. Other financial obligations**

Group expenses in connection with long-term contracts in the coming years relating to rental agreements, leases and maintenance contracts, and to other contracts, amount to €279.3 million (2000: €231.5 million). Future obligations in subsequent years are shown in the table below:

	2001 €m	2000 €m
Up to 1 year	49.3	27.0
1 to 5 years	131.1	82.6
More than 5 years	98.9	121.9
<b>Total future obligations</b>	<b>279.3</b>	<b>231.5</b>

Insurance policies result in obligations in 2002 amounting to €4.1 million (2001: €3.9 million).

There are obligations in 2002 from the payment of the remaining purchase price for entory AG amounting to €43.6 million. In addition, a performance-linked residual purchase price of up to €15.9 million is payable in 2003.

## 47. Events after the balance sheet date

Deutsche Börse AG increased its interest in entory AG by 44 percent to 96 percent in January 2002.

On 10 January 2002, Deutsche Börse AG repaid long-term loans of €90 million before maturity. A new interest rate swap that exactly mirrors the two interest rate swaps entered into in connection with these loans was purchased at a price of €2.5 million. The anticipated loss of €3.8 million was charged directly to retained earnings as at 31 December 2001. Due to the termination of the underlying transaction, the amount will be reversed to net financial income in 2002.

On 1 February 2002, the Board of Cedel International S.A. and the Executive Board of Deutsche Börse AG reached agreement on an offer by Deutsche Börse AG to acquire Cedel International S.A., and thus for Cedel International S.A.'s 50 percent interest in Clearstream International S.A. The offer requires the approval of two thirds of Cedel International S.A.'s shareholders, and is also subject to certain other reservations, such as regulatory approval.

The offer values Clearstream International S.A. at €3.2 billion. If they approve the offer, Cedel International S.A.'s shareholders would receive €1.6 billion, plus an additional amount equivalent to the net present value of Cedel International S.A.'s other assets to be liquidated. The shareholders can choose between cash or shares of Deutsche Börse AG up to an expected aggregate maximum of 8 million shares.

## 48. Executive bodies

The members of the Company's executive bodies are listed under "Executive and Supervisory Boards".

## 49. Shareholdings of members of the Executive and Supervisory Boards

The Company was notified of the following holdings of Deutsche Börse AG shares as at 31 December 2001:

	Shareholding as at 31 Dec. 2001
<b>Executive Board</b>	
Werner G. Seifert	0
Rudolf Ferscha	18,290
Frank Gerstenschläger	745
Mathias Hlubek	5,000
Michael Kuhn	0
Christoph Lammersdorf	2,380
Volker Potthoff	660
<b>Supervisory Board</b>	
Dr. Rolf-E. Breuer	0
Ralf Annemann	0
Herbert Bayer	0
Dr. Peter Coym	0
Leonhard H. Fischer	0
Uwe E. Flach	0
Hans-Peter Gabe	410
Peter Gloystein	0
Harold Hörauf	0
Dr. Norbert Juchem	0
Dr. Claus Löwe	0
Friedrich von Metzler	0
Fritz Nols	0
Klaus M. Patig	0
Roland Prantl	0
Sadegh Rismanchi	430
Gerhard B. Roggemann	0
Rainer Roubal	0
Johannes Witt	100
Manfred Zaß	0
Silke Zilles	0

## 50. Related party disclosures

Persons classified as related parties as defined by IAS 24 are essentially only the members of Deutsche Börse AG's Executive, Supervisory and Advisory Boards. Transactions with individuals classified as related parties are presented in the table below:

Amounts in € thousands	2001	2000
Executive Board remuneration	5,742	2,676
Supervisory Board remuneration	484	264
Advisory Board remuneration	92	98
Pension commitments to Executive Board members	4,627	3,766
Pension commitments to former Executive Board members or their surviving dependents	4,395	3,493
Remuneration (pensions) paid to former Executive Board members or their surviving dependents	248	245

Members of the Executive Board are paid annual compensation with a fixed and a variable component, including stock options. The total remuneration of the members of the Executive Board includes the variable component, the cost of virtual stock options and remuneration received from other Group companies. The Executive Board remuneration for 2000 has been restated accordingly.

Since the IPO on 5 February 2001, Deutsche Börse AG has established a virtual stock option program for Executive Board members and senior executives of Deutsche Börse AG and its subsidiaries. These virtual stock options have a maximum term of five years and a lock-up period of three years. The options can be exercised in each quarter of the subsequent two years in 14-day exercise windows. The amount of the cash payout depends on the relative performance of Deutsche Börse AG shares versus the Dow Jones STOXX Technology index as the reference index (€1 per 1 percent out-performance). 21,625 options (including 8,292 options allocated to members of the Executive Board) were allocated free of charge in 2001. A long-term provision reflecting the intrinsic value of the virtual stock options allocated amounted to €1.5 million (including €568 thousand for the Executive Board members) was set up at the closing date 31 December 2001 and expensed under staff costs. Deutsche Börse AG's Executive Board members and senior executives can also buy additional options carrying the same rights as the options allocated free of charge against payment of a premium.

Material transactions with companies classified as related parties are presented below. All transactions were effected on an arm's length basis.

	2001 €m	2000 €m
Systems operating services provided by Deutsche Börse Systems AG to Clearstream Banking AG	21.1	13.8
Xetra settlement fees paid by Clearstream Banking AG to Deutsche Börse AG	20.6	17.2
Specific service agreements for the provision of office and administrative services:		
by Eurex Zürich AG to SWX Swiss Exchange	24.8	22.3
by SWX Swiss Exchange to Eurex Zürich AG	1.6	10.5
by Deutsche Börse AG to Clearstream Banking AG	7.9	25.5
by Deutsche Börse AG to European Energy Exchange AG	5.1	4.9
by Eurex Frankfurt AG to Eurex Bonds GmbH	7.1	2.4
by entropy AG to Deutsche Börse Systems AG	8.4	5.0

## 51. Employees

	2001	2000
Average number of employees during the year	1,085	951
Employed at the balance sheet date:		
Deutsche Börse Group excl. entory Group	1,123	1,001
entory Group	388	–
<b>Total Deutsche Börse Group</b>	<b>1,511</b>	<b>1,001</b>

There was an average of 1,016 full-time equivalent (FTE) employees during the year (2000: 894).

Please refer also to the "Employees" section in the group management report.

Frankfurt/Main, 20 February 2002

Deutsche Börse AG

Werner G. Seifert

Rudolf Ferscha

Frank Gerstenschläger

Mathias Hlubek

Michael Kuhn

Christoph Lammersdorf

Volker Potthoff

# INDEPENDENT AUDITORS' REPORT

We have audited the consolidated financial statements, comprising the balance sheet, the income statement and the statements of changes in shareholders' equity and cash flows as well as the notes to the financial statements prepared by Deutsche Börse AG for the business year from 1 January to 31 December 2001. The preparation and the content of the consolidated financial statements in accordance with International Accounting Standards (IAS) are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit of the consolidated financial statements in accordance with German auditing regulations and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Those standards require that we plan and perform the audit such that it can be assessed with reasonable assurance whether the consolidated financial statements are free of material misstatements. Knowledge of the business activities and the economic and legal environment of the Group and evaluations of possible misstatements are taken into account in the determination of audit procedures. The evidence supporting the amounts and disclosures in the consolidated financial statements are examined on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the net assets, financial position, results of operations and cash flows of the Group for the business year in accordance with International Accounting Standards.

Our audit, which also extends to the group management report prepared by the Company's management for the business year from 1 January to 31 December 2001, has not led to any reservations. In our opinion, on the whole, the group management report provides a suitable understanding of the Group's position and suitably presents the risks of future development. In addition, we confirm that the consolidated financial statements and the group management report for the business year from 1 January to 31 December 2001 satisfy the conditions required for the Company's exemption from its duty to prepare consolidated financial statements and the group management report in accordance with German law.

Frankfurt/Main  
20 February 2002

KPMG Deutsche Treuhand-Gesellschaft  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft



Prof. Dr. Nonnenmacher  
German Public Auditor



Mock  
German Public Auditor

# SINGLE-ENTITY FINANCIAL STATEMENTS IN ACCORDANCE WITH THE HGB

A summary of Deutsche Börse AG's single-entity financial statements prepared in accordance with the provisions of the HGB (Handelsgesetzbuch – German Commercial Code) is presented below. Note that the information is not presented in the legally required form of publication in accordance with section 328 (2) of the HGB. A copy of the complete financial statements can be obtained from Deutsche Börse AG, Investor Relations, Neue Börsenstraße 1, 60487 Frankfurt/Main, Germany.

Income statement for the period 1 January to 31 December 2001	2001 €m	2000 €m
Sales revenue	625. 2	536.2
Other operating income	92.1	121.0
Total expenses	-643.5	-572.1
Income from equity investments	16.0	15.0
Income from profit pooling agreements	93.4	74.3
Cost of loss absorption	-16.7	-5.2
Write-downs on long-term investments	-0.6	-3.5
Net financial income	27.7	-4.2
<b>Profit before tax from ordinary activities</b>	<b>193.6</b>	<b>161.5</b>
Taxes	-77.0	-77.9
<b>Net profit for the period</b>	<b>111.6</b>	<b>83.6</b>
Balance sheet as at 31 December 2001	2001 €m	2000 €m
Assets		
Noncurrent assets		
Intangible assets	94.0	100.7
Plant and equipment	26.7	29.4
Long-term investments	267.1	213.3
	<b>387.8</b>	<b>343.4</b>
Current assets		
Receivables and other assets	133.6	147.3
Current financial investments	300.0	0
Cash and bank balances	715.0	7.4
Prepaid expenses	0.8	0.9
	<b>1,149.4</b>	<b>155.6</b>
<b>Total assets</b>	<b>1,537.2</b>	<b>499.0</b>
Shareholders' equity and liabilities		
Shareholders' equity		
Subscribed capital	102.8	18.8
Share premium	978.7	56.3
Other retained earnings	130.3	85.5
Unappropriated surplus	60.0	41.8
	<b>1,271.8</b>	<b>202.4</b>
Provisions	85.6	93.7
Liabilities	179.8	202.0
Deferred income	0	0.9
	<b>265.4</b>	<b>296.6</b>
<b>Total shareholders' equity and liabilities</b>	<b>1,537.2</b>	<b>499.0</b>

# PROPOSAL ON THE APPROPRIATION OF THE UNAPPROPRIATED SURPLUS

The Executive Board proposes that the unappropriated surplus of €60.0 million reported in the annual financial statements of Deutsche Börse AG be appropriated as follows:

	2001 €m	2000 €m
Distribution of a dividend to the shareholders on 16 May 2002 of €0.36 per share for 102,760,000 shares (in 2001 from net profit for 2000: €0.30)	37.0	30.8
Appropriation to revenue reserves	23.0	11.0
<b>Unappropriated surplus</b>	<b>60.0</b>	<b>41.8</b>

# EXECUTIVE BOARD MEMBERS AND THEIR APPOINTMENTS TO SUPERVISORY COMMITTEES

as at 31 December 2001

**Werner G. Seifert**  
**Chief Executive Officer**  
 Responsible for the Group Coordination,  
 Group Strategy and Risk Management Division

**Supervisory Board Member**  
 Deutsche Börse Systems AG (Chairman)  
 XLaunch AG (Chairman)  
 NeuerMarkt.com AG (Chairman)

**Administrative Board Member**  
 Eurex Zürich AG (Vice Chairman)

**Other appointments**  
 Clearstream International S.A.  
 (Member of the Board of Directors)

**Rudolf Ferscha**  
 Responsible for the Eurex Division

**Supervisory Board Member**  
 Deutsche Börse Systems AG  
 XLaunch AG

**Other appointments**  
 a/c/e Alliance CBOT/Eurex LLC.  
 (Supervisory Board Member)

**Frank Gerstenschläger**  
 Responsible for the Systems Division

**Supervisory Board Member**  
 European Energy Exchange AG

**Other appointments**  
 Deutsche Börse Systems Inc. (President)

**Mathias Hlubek**  
 Responsible for the Finance,  
 Corporate Center Division

**Supervisory Board Member**  
 NeuerMarkt.com AG

**Other appointments**  
 Clearstream International S.A.  
 (Member of the Board of Directors  
 and Member of the Audit Committee)

**Michael Kuhn**  
 Responsible for the Systems Division

**Supervisory Board Member**  
 Eurex Frankfurt AG  
 Eurex Clearing AG

**Administrative Board Member**  
 Eurex Zürich AG

**Christoph Lammersdorf**  
 Responsible for the Information Products Division

**Volker Potthoff**  
 Responsible for the Xetra Division

**Supervisory Board Member**  
 Deutsche Börse Systems AG  
 Fördergesellschaft für Börsen und Finanzmärkte  
 in Mittel- und Osteuropa mbH  
 NEWEX Börse AG  
 NeuerMarkt.com AG  
 XLaunch AG  
 pfm AG

# SUPERVISORY BOARD MEMBERS AND THEIR APPOINTMENTS TO SUPERVISORY COMMITTEES

as at 31 December 2001

## **Dr. Rolf-E. Breuer**

**Chairman of the Supervisory Board**  
Spokesman of the Executive Board of Deutsche Bank AG, Frankfurt/Main

### **Supervisory Board Member**

Bertelsmann AG  
Deutsche Lufthansa AG  
E.ON AG  
Münchener Rückversicherungs-Gesellschaft AG  
Siemens AG (Deputy Chairman)

### **Administrative Board Member**

Compagnie de Saint-Gobain S.A.  
Landwirtschaftliche Rentenbank

## **Manfred Zaß**

**Deputy Chairman of the Supervisory Board**  
Chairman of the Executive Board of DGZ DekaBank Deutsche Kommunalbank, Frankfurt/Main

## **Ralf Arnemann**

Staff member in the Information Products Applications Section of Deutsche Börse Systems AG, Frankfurt/Main

## **Herbert Bayer**

Trade Union Secretary of ver.di FB 1 Financial Services, Frankfurt/Main

### **Supervisory Board Member**

BWS Bank AG  
ETB AG

## **Dr. Peter Coym**

Member of the Executive Board of Lehman Brothers Bankhaus AG, Frankfurt/Main

## **Leonhard H. Fischer**

Member of the Executive Board of Dresdner Bank AG, Frankfurt/Main, and of Allianz AG, Munich

### **Supervisory Board Member**

Deutscher Investment-Trust Gesellschaft für Wertpapieranlagen mbH  
Eurex Clearing AG  
Eurex Frankfurt AG  
Fördergesellschaft für Börsen in Mittel- und Osteuropa mbH  
Itelligence AG  
K+S Aktiengesellschaft  
NorCom Information Technology AG

### **Appointments abroad**

Dresdner Bank Luxembourg S.A.  
(Conseil d'administration)  
Dresdner Kleinwort Benson North America Inc.  
(Board of Directors)  
Dresdner Kleinwort Wasserstein (Japan) Limited  
(Board of Directors)  
Dresdner Kleinwort Wasserstein Group Inc.  
(Board of Directors)  
Eurex Zürich AG (Administrative Board)

## **Uwe E. Flach**

Member of the Executive Board of DZ BANK AG, Deutsche Zentral-Genossenschaftsbank, Frankfurt/Main

### **Supervisory Board Member**

AGAB Aktiengesellschaft für Beteiligungen (Chairman)  
Andreae-Noris-Zahn AG (Deputy Chairman)  
DeutscheVerkehrsBank AG (Chairman)  
Union-Fonds-Holding AG (Deputy Chairman)

## **Hans-Peter Gabe**

Staff member in the Personnel Services Section of Deutsche Börse AG, Frankfurt/Main

## **Peter Gloystein**

Spokesman for the Executive Board of BHF-Bank AG, Frankfurt/Main

### **Supervisory Board Member**

DiBa Allgemeine Deutsche Direktbank AG  
Frankfurt-Trust Investment-Gesellschaft mbH  
STRABAG AG

**Harold Hörauf**

Personally liable partner of  
HSBC Trinkaus & Burkhardt KGaA, Dusseldorf

**Supervisory Board Member**

Börse Düsseldorf AG (Chairman)  
INKA Internationale Kapitalanlagegesellschaft mbH  
(Chairman)  
HSBC Trinkaus Capital Management GmbH (HTCM)  
(Chairman)  
BVV Versicherungsverein des Bankgewerbes e.V.  
BVV Versorgungskasse des Bankgewerbes e.V.

**Administrative Board Member**

HSBC Trinkaus & Burkhardt (International) S.A.  
(Deputy Chairman)  
HSBC Investment Managers S.A. (Chairman)

**Dr. Norbert Juchem**

Member of the Executive Board of  
HypoVereinsbank AG, Munich

**Supervisory Board Member**

D.A.S. Deutscher Automobil Schutz Allgemeine  
Rechtsschutz-Versicherung-AG  
Fördergesellschaft für Börsen und Finanzmärkte in  
Mittel- und Osteuropa mbH  
Victoria Kapitalanlagegesellschaft mbH  
Bank BPH  
INDexCHANGE Investment AG (Chairman)

**Administrative Board Member**

HVB Asset Management (Deputy Chairman)  
HypoVereinsbank Luxemburg S.A. (Vice President)

**Dr. Claus Löwe**

Partner of  
Löwe und Bierich ACM Holding, Bad Homburg

**Friedrich von Metzler**

Personally liable partner of  
Bankhaus B. Metzler seel. Sohn & Co. KGaA,  
Frankfurt/Main

**Supervisory Board Member**

DWS Investment GmbH  
Eurohyp Aktiengesellschaft  
Metzler B.V. (Chairman)  
Metzler-Payden LLC.  
Philipp Holzmann AG

**Administrative Board Member**

Metzler Capital Markets Italia S.I.M. (Chairman)

**Fritz Nols**

Chairman of the Supervisory Board of  
Fritz Nols Global Equity Services AG,  
Frankfurt/Main

**Supervisory Board Member**

DaVinci Asset Management AG (Chairman)

**Klaus M. Patig**

Member of the Executive Board of  
Commerzbank AG, Frankfurt/Main

**Supervisory Board Member**

ADIG Allgemeine Deutsche Investment-  
Gesellschaft mbH (Chairman)  
Commerz Asset Managers GmbH  
Commerzbank Investment Management GmbH  
(Chairman)  
Degussa-Hüls AG  
Eurex Clearing AG  
Eurex Frankfurt AG  
Ferrostaal AG  
Fördergesellschaft für Börsen und Finanzmärkte in  
Mittel- und Osteuropa mbH  
G. Kromschröder AG (Deputy Chairman)  
Pensor Pensionsfonds AG, i.Gr. (Deputy Chairman)  
RHEINHYP Rheinische Hypothekenbank AG  
(Deputy Chairman)  
VINCI Deutschland GmbH

**Administrative Board Member**

Eurex Zürich AG

**Other appointments**

Caisse Centrale de Réescompte S.A.  
(Président du Conseil de Surveillance)  
Commerz Asset Management plc.  
(Chairman of the Board of Directors)  
Jupiter International Group plc.  
(Chairman of the Board of Directors)  
Montgomery Asset Management LLC.  
(Member of the Board of Directors)

**Roland Prantl**

Staff member in the Configuration Management Section  
of Deutsche Börse Systems AG, Frankfurt/Main

**Sadegh Rismanchi**

Staff member in the Configuration Management Section  
of Deutsche Börse Systems AG, Frankfurt/Main

**Gerhard B. Roggemann**

Member of the Executive Board of  
Westdeutsche Landesbank Girozentrale,  
Düsseldorf/Münster

**Supervisory Board Member**

AXA Investment Managers Deutschland GmbH  
AXA Lebensversicherung AG  
Börse Düsseldorf AG (Deputy Chairman)  
Fresenius AG  
Hapag-Lloyd AG  
Solvay Deutschland GmbH  
Veba Oel AG  
WestLB Asset Management Kapitalanlage-  
gesellschaft mbH (Deputy Chairman)  
WestLB Research GmbH (Chairman)  
WPS WertpapierService Bank AG

**Administrative Board Member**

Banca del Gottardo  
WestLB International S.A. (Chairman)

**Other appointments**

International University Bremen GmbH  
(Board of Governors)

**Rainer Roubal**

Chairman of the Executive Board of  
ICF Intermediär Center Frankfurt Kursmakler AG,  
Frankfurt/Main

**Supervisory Board Member**

Premax AG

**Johannes Witt**

Staff member in the Financial Accounting  
and Controls Section of Deutsche Börse AG,  
Frankfurt/Main

**Silke Zilles**

Staff member in the IP Marketing & Sales Section of  
Deutsche Börse AG, Frankfurt/Main

**Committee Members****Supervisory Board Finance Committee**

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Dr. Peter Gloystein  
Fritz Nols  
Johannes Witt

**Supervisory Board Personnel Committee**

Dr. Rolf-E. Breuer (Chairman)  
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Klaus M. Patig  
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Herbert Bayer  
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**Supervisory Board Technology Committee**

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# INVESTOR RELATIONS/PUBLICATIONS

Deutsche Börse provides investors with extensive company information, current and historical financial data as well as information on planned corporate measures (the latter in the form of investor presentations).

You can order or download the relevant documents at the Internet address shown below. Most documents, including the annual report, are available in German and English.

## IR communications and media

Medium	Internet download	HTML	Print	In person
<b>General documents and statistics for investors</b>				
Prospectus	■			
Documentation of the Annual General Meeting:				
Proposals with supporting arguments	■		■	
Voting results	■			
Monthly statistics for the cash and derivatives markets	■			
Factbook	■		■	
<b>Financial reports</b>				
Annual reports 1997 to 2001	■	■		■
Interim reports	■			■
Financial calendar		■		
<b>Investor presentations</b>				
Analyst presentations	■	■	■	
Videostreams of analyst conferences		■		
Recording of analyst conference calls		■		
Analyst Q&A – transcript	■			
Videostreams of important speeches by the CEO and CFO		■		
One-on-ones with investors/analysts				■
Presentations at investor conferences				■

Downloads: [www.deutsche-boerse.com/ir](http://www.deutsche-boerse.com/ir)

Order information: [www.deutsche-boerse.com/Market Data/Statistics](http://www.deutsche-boerse.com/Market Data/Statistics)

# FINANCIAL CALENDAR

## Financial calendar of Deutsche Börse Group

### 2002

2 April	Annual Press Briefing for the financial year 2001
8 May	Results of the first quarter 2002
15 May	Annual General Meeting
8 August	Results of the second quarter 2002
8 November	Results of the third quarter 2002

# CONTACT

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# REPRESENTATIVE OFFICES

A company with a strong international orientation such as Deutsche Börse needs to be present in the world's leading financial centres. In recent years, Deutsche Börse has opened representative offices in Chicago, London and Paris. These offices do not conduct business of their own; instead, their task is to cultivate customer contacts and foster a dialogue with those responsible for steering capital market policy.

## **London**

UK Representative Office  
50 Cannon Street  
London EC4N 6JJ  
Phone +44-20-77 78 93 10

## **Chicago**

US Representative Office  
311 South Wacker Drive  
Suite 3750  
Chicago, IL 60606  
Phone +1-312-408-45 00

## **Paris**

Representative Office France  
17, rue de Surène  
75008 Paris  
Phone +33-1-155 27 67 67

Within Germany, Deutsche Börse AG is present in Frankfurt, the country's financial hub, as well as in the capital city of Berlin. Here, staff members monitor developments within the German capital market and participate in an intensive dialogue with policymakers.

## **Berlin**

Representative Office Berlin  
Unter den Linden 36  
10117 Berlin  
Phone +49-30-5 90 04-100

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## Glossary

**a/c/e Alliance CBOT/Eurex** – Derivatives trading platform that utilizes Eurex technology.

**Book-building spread** – Price spread of a share that is determined when a company goes public. Prospective shareholders make their subscription offers within this predetermined price range.

**CEF** – **Consolidated Exchange Feed** – A data stream that replaced the Financial Data Disseminator (FDD) and Ticker Plant Frankfurt (TPF) data feeds at the end of June 2001. With CEF, data can be bundled according to customer requirements.

**Central counterparty** – In cash market trading, the central counterparty enables exchange and → OTC transactions to be executed anonymously because it acts as an intermediary between the parties to the trade, thereby assuming the risk of non-performance on the part of the buyer or seller. In the context of → clearing procedures for derivatives transactions, it enables participants to handle all aspects of trading via a single system.

**Clearing** – The netting and settlement of claims and liabilities arising from securities and derivatives transactions; the determination of the bilateral net debt of buyers and sellers involved in exchange transactions. Clearing is typically performed by a central institution known as a clearinghouse.

**DAX** – **Deutscher Aktienindex** – Performance index calculated by Deutsche Börse every 15 seconds. It depicts the price development of the 30 German shares with the greatest market capitalization and trading volume.

**Directors' dealings** – Transactions in the shares of a listed company entered into by the members of its supervisory or executive boards. In the Neuer Markt segment, such dealings have been subject to the disclosure requirement since 1 March 2001.

**Dow Jones Euro STOXX 50** – Index comprising 50 blue chip shares from the EU member countries. Criteria for inclusion in this index are sector and market capitalization.

**EBIT** – **earnings before interest and taxes** – Ratio that indicates a company's operating earnings power independent of its capital structure.

**ECN** – **electronic communication network** – Private electronic platform for order-driven trading in shares, bonds, or other standardised fungible goods.

**ETFs** – **exchange-traded funds** – Mutual funds whose shares can be bought or sold in continuous trading on the stock exchange, and that track the performance of the index on which they are based.  
→ XTF

**Fixed-income securities** – Bonds that bear interest at a fixed rate, usually with a maturity of more than one year.

**Future** – Derivatives contract in which the seller agrees to deliver, and the buyer agrees to purchase, a certain quantity of an underlying commodity or instrument at a predetermined price on a specified settlement date.

**Hedging** – Strategy in which participants enter into an → options or → futures transaction to minimize price or currency risks.

**Liquidity** – Situation in the financial market in which securities can be bought and sold at any time owing to sufficient supply and demand. The liquidity of a security is measured in terms of its trading volume and its price spread.

**Market maker** – Banks or securities trading houses that assume the function of quoting binding buy and sell prices for one or more

securities at any given time. In a more general sense, market makers are companies or company units that develop new markets, and provide → liquidity in these markets.

**MDAX** – **Mid-cap DAX** – Index comprising the 70 German companies listed in continuous trading on the Frankfurt Stock Exchange that rank behind the 30 → DAX stocks in terms of market capitalization and trading volume.

**NEMAX 50** – **Neuer Markt blue chip index** – Index comprising the 50 German and foreign stocks listed in Neuer Markt with the highest market capitalization and liquidity.

**Option** – The right to buy or sell a certain quantity of an → underlying instrument from the option writer at an agreed-upon price (exercise price) within a certain period of time or on a specified date. The right to buy the underlying instrument is referred to as a call; the right to sell it is known as a put.

**OTC** – **over-the-counter market** – Off-exchange market for stocks and bonds in which prices are negotiated by the parties to the trade.

**Primary market** – Financial market for the initial issue and placement of securities. Antonym: → Secondary market

**Repo trading** – Sale of a security in which the seller agrees to buy back the security on a specified date. Repo transactions (also called repurchase agreements) are typically entered into by banks as a strategy for accessing short-term liquid funds.

**Scalability** – Capacity of a system to accommodate increasing data volumes and adapt to changing trading conditions or market situations.

**Secondary market** – Financial market for securities that have already been issued. Antonym: → Primary market

**Settlement** – Completion and fulfillment of an exchange transaction, i.e. the delivery of the security or commodity in exchange for the equivalent in cash.

**SMAX** – Quality segment for small caps (typically, medium-sized companies with a small market capitalization).

**Spot market/Spot trading** – Market segment on an exchange in which the performance of a transaction (delivery, acceptance and payment) must occur within a short period of time (in Germany, this time period is two days). Antonym: futures market.

**Stock split** – Division of a share into two or more parts; a strategy designed primarily to make shares less expensive, and thus easier to trade.

**Straight-through processing** – The swift, safe and efficient processing of a securities transaction, from order placement, to delivery vs. payment, to the subsequent safe custody of the security.

**Underlying** – A security (e.g. a share) that constitutes the basis for an → options or → futures contract, and must be delivered or accepted when the contract is exercised, or when it matures.

**Volatility** – Indicator of the fluctuation in price of shares, currencies and interest rates. The term often refers to price and interest rate fluctuations in the market as a whole.

**Xontro** – Computerized system of BrainTrade GmbH that processes the transactions on all eight regional exchanges in Germany. Xontro, which replaced the BOSS/BÖGA system, handles cash market transactions executed both on and off the exchange.

**XTF** – **Exchange Traded Funds** – Market segment of Deutsche Börse AG for continuous trading in investment funds. → ETFs

## Deutsche Börse Group: Four-Year Review

		1998 <sup>1)</sup>	1999 <sup>1)</sup>	2000	2001
<b>Consolidated income statement</b>					
Sales revenue <sup>2)</sup>	€m	455.1	599.0	648.9	760.3
Other operating income	€m	27.8	45.9	95.7	77.3
Total expenses less own expenses capitalized <sup>2)</sup>	€m	-373.0	-533.0	-591.6	-604.3
Income from equity investments, net	€m	-3.7	-5.7	63.5	44.8
Earnings before interest and taxes (EBIT)	€m	106.3	106.2	216.5	278.1
Profit before tax from ordinary activities	€m	123.3	131.5	218.9	319.2
DVFA/SG earnings <sup>3)</sup>	€m	53.4	70.0	142.9	203.7
Dividend (proposal for FY2001)	€m	31.1	58.7	30.8	37.0
<b>Consolidated cash flow statement</b>					
Cash flows from operating activities	€m	155.0	168.4	101.5	248.8
Cash flows from investing activities	€m	-82.5	-137.9	-252.3	-160.7
<b>Consolidated balance sheet</b>					
Equity <sup>3)</sup>	€m	218.5	257.9	419.8	1,560.3
Technical closing date liabilities <sup>4)</sup>	€m	964.7	3,284.6	71.1	164.7
Total assets <sup>3)</sup>	€m	1,454.2	3,905.9	922.7	2,135.1
<b>Performance indicators</b>					
DVFA/SG earnings per share <sup>5)</sup>	€	0.73	0.95	1.95	2.04
Dividend per share <sup>5)</sup>	€	0.42	0.80	0.30	0.36
Operating cash flow per share <sup>5)</sup>	€	2.11	2.29	1.38	2.49
Employees (FTEs, annual average)		1,042	1,143	894	1,016
Sales revenue per employee <sup>2)</sup>	€ thousands	437	524	726	748
<b>Market indicators</b>					
<b>Xetra</b>					
Number of transactions	thousands	7,150	15,785	39,009	49,719
Order book turnover	€m	403,302	514,959	980,552	958,407
Participants (at 31 Dec.)		280	404	431	413
<b>Floor trading</b>					
Number of transactions	thousands	47,159	73,364	163,914	124,342
Order book turnover	€m	207,998	400,479	438,712	235,780
<b>Eurex</b>					
Number of traded contracts	millions	248.2	379.1	454.1	674.2
Participants (at 31 Dec.)		313	414	429	427

<sup>1)</sup> Deutsche Börse Clearing AG was fully consolidated until 1999. The 50 percent interest in Clearstream International has been carried at equity since the merger of Deutsche Börse Clearing with Cedel International to form Clearstream International.

<sup>2)</sup> Excluding net licence fees

<sup>3)</sup> Restated to reflect changes in accounting policies

<sup>4)</sup> Liabilities from the banking business of Deutsche Börse Clearing and Eurex clearing members' cash deposits

<sup>5)</sup> Adjusted for the 10-for-1 stock split implemented on 1 June 2001

## Shareholdings of Deutsche Börse AG

Company	Registered office	Country	Parent company	Equity interest at 31 Dec. 2001	%
Deutsche Börse Systems AG	Frankfurt/Main	Germany	Deutsche Börse AG	100	
Deutsche Börse Systems Inc.	Delaware	USA	Deutsche Börse Systems AG	100	
entory AG	Karlsruhe	Germany	Deutsche Börse AG	52.02	
entory (UK) Ltd.	London	UK	entory AG	100	
Finnovation GmbH	Frankfurt/Main	Germany	entory AG	100	
Finnovation (UK) Ltd.	Hatfield	UK	entory AG	100	
atec GmbH	Munich	Germany	entory AG	100	
entory ventures GmbH	Karlsruhe	Germany	entory AG	100	
projects IT-Projektbörse GmbH	Karlsruhe	Germany	entory AG	22	
projects IT-Projektbörse GmbH	Karlsruhe	Germany	entory ventures GmbH	72	
Eurex Zürich AG	Zurich	Switzerland	Deutsche Börse AG	49.97	
Eurex Frankfurt AG	Frankfurt/Main	Germany	Eurex Zürich AG	100	
Eurex Beteiligungen AG	Zurich	Switzerland	Eurex Zürich AG	100	
a/c/e Alliance CBOT/Eurex LLC.	Delaware	USA	Eurex Beteiligungen AG	50	
Eurex Clearing AG	Frankfurt/Main	Germany	Eurex Frankfurt AG	100	
Eurex Bonds GmbH	Frankfurt/Main	Germany	Eurex Frankfurt AG	76.67	
Eurex Repo GmbH	Frankfurt/Main	Germany	Eurex Frankfurt AG	100	
European Energy Exchange AG	Frankfurt/Main	Germany	Eurex Zürich AG	46.50	
Xlaunch AG	Frankfurt/Main	Germany	Deutsche Börse AG	100	
Xlaunch Erste Vermögensverwaltungsgesellschaft mbH	Frankfurt/Main	Germany	Xlaunch AG	100	
Xlaunch Zweite Vermögensverwaltungsgesellschaft mbH	Frankfurt/Main	Germany	Xlaunch AG	100	
NeuerMarkt.com AG	Frankfurt/Main	Germany	Deutsche Börse AG	100	
Clearstream International S.A.	Luxembourg	Luxembourg	Deutsche Börse AG	50	
FDS Finanz-Daten-Systeme GmbH & Co.KG	Frankfurt/Main	Germany	Deutsche Börse AG	50	
NEWEX Börse AG	Vienna	Austria	Deutsche Börse AG	50	
STOXX Ltd.	Zurich	Switzerland	Deutsche Börse AG	25	
Deutsche Gesellschaft für Wertpapierabwicklung mbH	Frankfurt/Main	Germany	Deutsche Börse AG	100	
DeuBö Vermögensverwaltungs AG	Frankfurt/Main	Germany	Deutsche Börse AG	100	
Deutsche Börse Erste Vermögensverwaltungsgesellschaft mbH	Frankfurt/Main	Germany	Deutsche Börse AG	100	
Fördergesellschaft für Börsen und Finanzmärkte in Mittel- und Osteuropa mbH	Frankfurt/Main	Germany	Deutsche Börse AG	86	
IX International Exchanges Ltd.	London	UK	Deutsche Börse AG	50	
Deutsches Börsenfernsehen GmbH	Frankfurt/Main	Germany	Deutsche Börse AG	35.11	
Deutsche Gesellschaft für Ad hoc-Publizität mbH	Frankfurt/Main	Germany	Deutsche Börse AG	33.33	
iBoxx Ltd.	London	UK	Deutsche Börse AG	19.997	