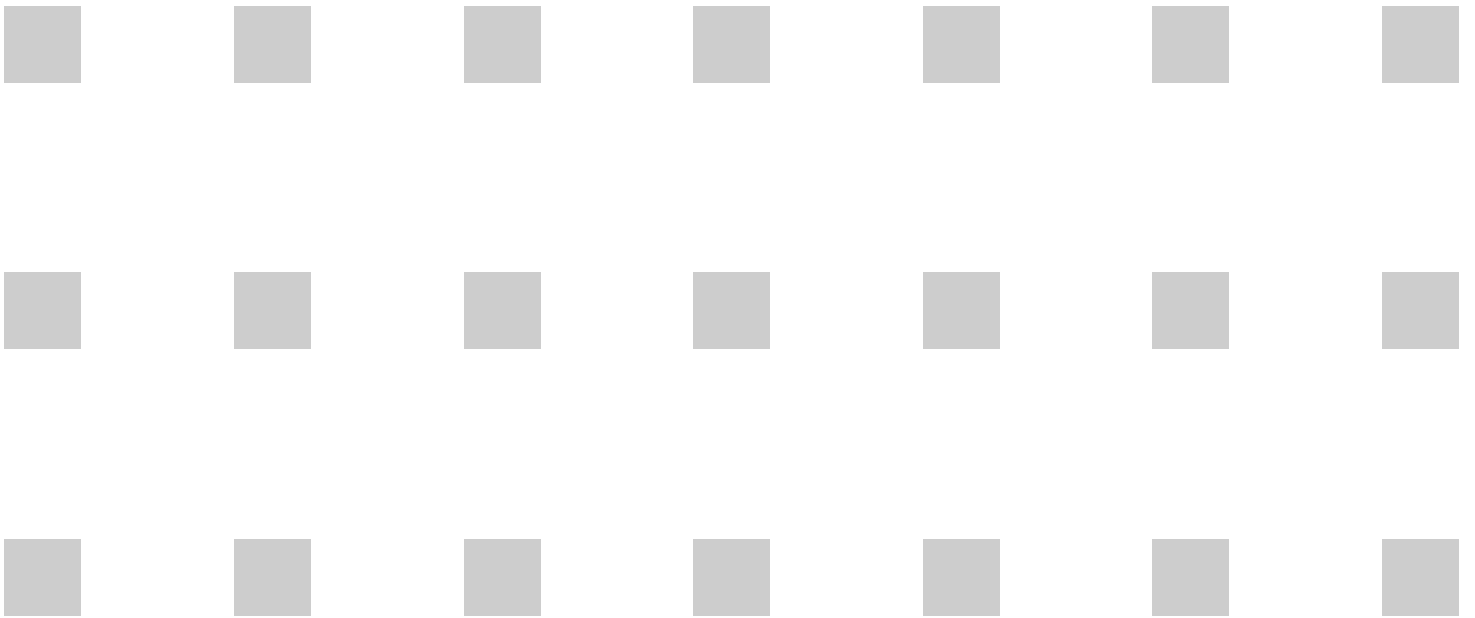


1999 Annual Report  
on Form 20-F included.



**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

**Form 20-F**

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR  
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
for the fiscal year ended December 31, 1999  
OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
Commission file number 1-14540

**Deutsche Telekom AG**

(Exact Name of Registrant as specified in its charter)

**Germany**

(Jurisdiction of Incorporation or Organization)

**Friedrich-Ebert-Allee 140, 53113 Bonn, Germany**

(Address of Registrant's Principal Executive Offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
American Depositary Shares, each representing one Ordinary Share	New York Stock Exchange
Ordinary Shares, no par value	New York Stock Exchange*

Securities registered or to be registered pursuant to Section 12(g) of the Act.

**NONE**  
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

**NONE**  
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

Ordinary Shares, no par value: 3,029,604,034  
(as of December 31, 1999)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected.

Item 17  Item 18

- Not for trading, but only in connection with the registration of American Depositary Shares.

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As used in this document, the "Deutsche Telekom" refers to Deutsche Telekom AG and its consolidated subsidiaries unless the context otherwise requires. Prior to January 1, 1995, Deutsche Telekom operated as a division of the Deutsche Bundespost, the German state postal, telephone and telegraph authority. As used in this document, the "Deutsche Telekom" also refers to Deutsche Telekom AG's predecessor entities, "Deutsche Post" refers to Deutsche Post AG and "Deutsche Postbank" refers to Deutsche Postbank AG, and their respective predecessors, unless the context otherwise requires.

This report does not make reference to developments after April 10, 2000.

Deutsche Telekom's registered address is Friedrich-Ebert-Allee 140, 53113 Bonn, Germany, its postal address is Postfach 2000, 5310Bonn, Germany and its telephone number is +49-228 181 88880 (Investor Relations).

## **GLOSSARY OF SELECTED TELECOMMUNICATIONS TERMS**

The Glossary of Selected Telecommunications Terms on pages 141 to 143 of the 1999 Annual Report contained in Deutsche Telekom's Report on Form 6-K dated April 19, 2000 (the "1999 Annual Report") is incorporated by reference in this report.

### **FORWARD-LOOKING STATEMENTS**

Except for historical statements and discussions, statements contained in this Annual Report constitute "forward-looking statements" within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. Any document we filed with the U.S. Securities and Exchange Commission may also include forward-looking statements. Other written or oral forward-looking statements have been made and may in the future be made, from time to time, by or on behalf of Deutsche Telekom. These statements include, without limitation, statements concerning our future results of operations, the impact of regulatory initiatives on our operations, our share of new and existing markets, general industry and macroeconomic growth rates and our performance relative to them, and statements preceded by, followed by or including the words "believes", "expects", "anticipates" or similar expressions.

These forward-looking statements rely on a number of assumptions concerning future events and are subject to a number of uncertainties and other factors. Many of these factors are outside of our control, and could cause actual results to differ materially from such statements. These factors include, but are not limited to:

- the level of demand for telecommunications services, particularly with regard to access lines, traffic and new higher value products;
- competitive forces in liberalized markets, including pricing pressures, technological developments, alternative routing developments and our ability to retain market share in the face of competition from existing and new market entrants;
- the effects of our tariff reduction initiatives, particularly in our core telephony business, but also with regard to many other areas;
- regulatory developments and changes, including with respect to the levels of tariffs, the terms of interconnection, customer access and international settlement arrangements;
- the outcome of litigation in which we are involved;
- the success of new business, operating and financial initiatives, many of which involve start-up costs, and new systems and applications, particularly with regard to our integration of service offerings;
- the progress of our domestic and international investments, joint ventures and alliances;
- the impact of unusual items resulting from ongoing evaluations of our strategies;
- the availability, terms and deployment of capital, particularly in view of our debt refinancing needs, and the impact of regulatory and competitive developments on capital outlays;
- the level of demand in the market for our shares and for shares of our subsidiaries, which can affect our acquisition strategies;
- our ability to achieve cost savings and realize productivity improvements;
- the development of the German real estate market in view of our substantial real estate portfolio, which had a book value of approximately EUR 17.2 billion as of December 31, 1999; and
- general economic conditions, government and regulatory policies, and business conditions in the markets we and our affiliates serve.

Readers are cautioned not to put undue reliance on these forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

## EXCHANGE RATES

Effective January 1, 1999, Germany and ten other member states of the European Union adopted the euro as their common currency. With the first quarter of 1999, we began publishing our consolidated financial statements in euros and, unless otherwise indicated, all amounts in this document are expressed in euros. Amounts stated in euros appearing in this document for periods prior to December 31, 1998, have been translated from Deutsche Marks at the official fixed conversion rate of EUR 1.00 = DM 1.95583.

As used in this document:

- “euro” or “EUR” means the single unified currency that was introduced in the Federal Republic and ten other participating member states of the European Union on January 1, 1999;
- “Deutsche Mark” or “DM”, when used with respect to any time or period before January 1, 1999, means the lawful currency of the Federal Republic of Germany (the “Federal Republic”) and, when used with respect to any time or period after January 1, 1999, means the sub-unit of the euro designated as such under the applicable regulations of the European Community;
- “U.S. Dollar”, “Dollar” or “US\$” means the lawful currency of the United States of America;
- “FF” means the lawful currency of France;
- “GBP” means the lawful currency of Great Britain;
- “GRD” means the lawful currency of Greece;
- “HUF” means the lawful currency of Hungary;
- “Austrian schillings” means the lawful currency of Austria;
- “zloty” means the lawful currency of Poland;
- “HRK” means the lawful currency of Croatia;
- “rupiah” or “Rp” means the lawful currency of Indonesia; and
- “ringgit” means the lawful currency of Malaysia.

For your convenience, this document contains translations of certain amounts denominated in one currency into another currency. You should not assume however, that amounts could have been exchanged at the exchange rate used in these translations. Unless otherwise stated, the currency translations made in this document have been made as follows:

- in the case of statements of revenue and income, at the average rate of exchange for the relevant currencies for the relevant period;
- in the case of statements of balance sheet positions, at the rate of exchange for the relevant currencies for the relevant balance sheet date; and
- in the case of investments, at the rate of exchange for the relevant date of investment;

in each case consistent with the exchange rates used in the preparation of our consolidated financial statements. You may refer to “Foreign currency translation” in the consolidated financial statements on page 99 for information concerning certain exchange rates used in the preparation of our financial statements.

Unless otherwise stated, Dollar amounts have been translated from euros at the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the “Noon Buying Rate”) on March 31, 2000. At that date, the Noon Buying Rate for the euro was EUR 1.0445 per US\$ 1.00, which if expressed in Deutsche Marks would have been equivalent to a rate of DM 2.0429 per US\$ 1.00, translated from euros at the official fixed conversion rate. This rate may differ from the actual rates we used in the preparation of our consolidated financial statements as of December 31, 1999 and 1998, and for each of the years in the three year period ended December 31, 1999. Accordingly, Dollar amounts appearing in this report may differ from the actual Dollar amounts that we originally translated into euros in the preparation of our financial statements.

The following table sets forth, for the periods from January 1, 1999 through December 31, 1999 and from January 1, 2000 through March 31, 2000, the average, high, low and period-end Noon Buying Rates for the euro expressed in Dollars per EUR 1.00. For the period from 1994 through 1998 the average, high, low and period-

end Noon Buying Rates for the Deutsche Mark are shown converted into euros at the official fixed conversion rate and expressed in Dollars per EUR 1.00.

<u>Year</u>	<u>Average (1)</u>	<u>High</u>	<u>Low</u>	<u>Period- End</u>
1995 .....	1.3715	1.4418	1.2528	1.3634
1996 .....	1.2978	1.3626	1.2493	1.2711
1997 .....	1.1244	1.2689	1.0398	1.0871
1998 .....	1.1120	1.2178	1.0548	1.1733
1999 .....	1.0588	1.1812	1.0016	1.0070
2000 (through March 31, 2000).....	0.9658	1.0335	0.9524	0.9574

(1) The average of the Noon Buying Rates on the last business day of each month during the relevant period.

Since January 4, 1999, the shares of Deutsche Telekom have traded on the German stock exchanges in euro. Fluctuations in the exchange rate between the euro and the Dollar will affect the Dollar equivalent of the euro price of the shares on the German stock exchanges and, as a result, are likely to affect the market price of the ADSs on the New York Stock Exchange. Deutsche Telekom will declare any cash dividends in euros, and exchange rate fluctuations will affect the Dollar amounts you receive if you are a holder of American Depositary Receipts evidencing Deutsche Telekom American Depositary Shares (“ADSs”) on conversion of cash dividends on the shares represented by your ADSs.

## PART I

### ITEM 1—DESCRIPTION OF BUSINESS

#### **Introduction**

Deutsche Telekom is the largest provider of telecommunications services in Germany and one of the world’s largest telecommunications companies measured in terms of 1999 consolidated net revenues. Deutsche Telekom’s consolidated net revenues in 1999 totaled EUR 35.5 billion.

Deutsche Telekom focuses on providing innovative and high quality telecommunications services, taking advantage of its large and technologically advanced networks. Using its strong position in access services, mobile communications, data/IP/systems, and consumer Internet services, Deutsche Telekom focuses increasingly on offering its customers communications solutions that take advantage of the increasing convergence of information technology with telecommunications.

Deutsche Telekom is the largest provider of fixed-line voice telephony services to the public in Germany, providing nearly 48 million access lines to subscribers at December 31, 1999. Deutsche Telekom is the world’s leading ISDN operator, with 13.3 million ISDN channels in service at December 31, 1999, which was more than the total number of ISDN channels in service in the United States. Deutsche Telekom has one of the most technologically advanced networks in the world, with 100 percent digital transmission and switching. The full reconstruction of eastern Germany’s telecommunications network in the wake of German reunification made eastern Germany the home of one of the world’s most modern physical infrastructures for telecommunications services. As a natural consequence of having a highly developed nationwide network, Deutsche Telekom is Germany’s leading provider of interconnection and other carrier services to other telecommunications companies.

Deutsche Telekom is Germany’s second largest mobile communications provider, with around 9.2 million mobile telephone subscribers as of December 31, 1999. Deutsche Telekom estimates that its German mobile telephony subsidiary had a market share of about 39.0 percent in the German digital mobile telecommunications market as of December 31, 1999, and a 39.4 percent market share in the overall German mobile telecommunications market at that date. The overall German digital mobile telephony market has grown rapidly

in recent years; according to Deutsche Telekom's estimates, this market expanded to an estimated 23.2 million subscribers at December 31, 1999 from an estimated 13.5 million subscribers the year before. Nevertheless, Germany has a relatively low mobile telephony penetration rate, as only 28 percent of the population subscribed to a mobile telephony service as of December 31, 1999. By way of comparison, the mobile telephony penetration rate was approximately 66 percent in Finland, 57 percent in Sweden, 53 percent in Italy, 52 percent in Austria, 41 percent in the United Kingdom and 35 percent in France. As a result, Deutsche Telekom believes that the German market still has considerable potential for growth, particularly as the service becomes increasingly affordable to larger groups of potential customers.

Deutsche Telekom is a leading provider of data communications and data communications/systems solutions, such as corporate networks, in Germany. Due to rapidly expanding Internet usage and the increasing use of intranets by multi-location companies, this area is one of the fastest growing areas in the telecommunications field. Deutsche Telekom also intends to significantly expand its activities in the area of information technology/systems solutions. In this regard, Deutsche Telekom announced in March 2000 that it had agreed to acquire from DaimlerChrysler AG an equity interest of 50.1 percent in debis Systemhaus GmbH (debis), subject to regulatory and corporate approvals. debis Systemhaus is one of Europe's largest information technology/systems solutions providers, and Deutsche Telekom's acquisition of a stake in debis Systemhaus should allow Deutsche Telekom to increase significantly its presence in this important market.

Deutsche Telekom operates Germany's largest broadband cable network, transmitting television and radio programming, directly or indirectly, to 17.8 million households at December 31, 1999. As part of its plan to sell majority interests in the business to third party investors, Deutsche Telekom has placed the core of its broadband cable business into a separate subsidiary and plans to further divide the business into nine regional companies as of July 1, 2000. In February and March 2000, Deutsche Telekom reached the first agreements for the sale of a majority interest in two of these regional companies, and negotiations regarding the sale of interests in other regional companies are currently in progress. Deutsche Telekom expects to retain a minority equity interest in each of these regional companies to preserve its access to cable television customers for the purpose of marketing its multimedia services. In terrestrial radio and television signal broadcasting, Deutsche Telekom is also among Europe's leaders.

Deutsche Telekom owns Europe's largest Internet online service provider and access gateway, T-Online International AG, (T-Online), which had 4.2 million subscribers as of December 31, 1999. The number of T-Online subscribers increased by over 50 percent in 1999 as compared to 1998 figures, and by over 40 percent in 1998 as compared to 1997 figures. T-Online has built on its strong position in Germany and has taken steps to establish operations outside Germany, such as the purchase of Club Internet, a leading French online service provider, in February 2000 and the founding of T-Online.at, an Austrian online service provider, in December 1999 in cooperation with max.mobil.Telekommunikation Service GmbH (max.mobil.), Deutsche Telekom's Austrian mobile communications subsidiary. Within Germany, Deutsche Telekom is positioning itself as the leading provider of Internet-based applications and services, focusing on its T-Online and T-Mart brands.

Through its terminal equipment business area, Deutsche Telekom is the only company in the German telecommunications market that sells a comprehensive range of telecommunications products such as telephones, fax machines, private automatic branch exchanges (PABXs) and complete network solutions.

In keeping with its position as Germany's largest telecommunications carrier, Deutsche Telekom is also the leading provider in Germany of directory assistance, toll-free number, call centers, public telephones and telephone directory services.

Deutsche Telekom is seeking to expand internationally through acquisitions, investments and cooperations in the areas that are the four pillars of its growth strategy: access services, mobile communications, data/IP/systems and consumer Internet services. Accordingly, in 1999, Deutsche Telekom:

- increased its ownership interest in max.mobil., Austria's second largest mobile communications provider, from 25 percent to 91 percent;
- acquired One 2 One Ltd., one of the leading mobile communications service providers in the United Kingdom;
- agreed to acquire the equity interests of MediaOne in several Central European mobile telephony companies;
- acquired a 35 percent equity interest in Hrvatske Telekomunikacije d.d. , the leading full-service telecommunications provider in Croatia; and
- acquired SIRIS S.A., a significant provider of fixed-line telephony and data communications services in France.

Deutsche Telekom considers the expansion of its international business to be an essential component of its overall business strategy. Deutsche Telekom aims in particular to build on its strengths in Europe and is interested in expanding its reach in the United States.

### **Historical Background**

Historically, the provision of public telecommunications services in Germany was a state monopoly as formerly provided by the German constitution. In 1989, the Federal Republic of Germany (Federal Republic) began to transform the postal, telephone and telegraph services administered by the former monopoly provider into market-oriented businesses and divided the former monopoly provider into three distinct entities along lines of business, one of which was the predecessor of Deutsche Telekom. At the same time, the Federal Republic also started the progressive liberalization of the German telecommunications market. Deutsche Bundespost TELEKOM was transformed into a private law stock corporation, Deutsche Telekom AG, at the beginning of 1995.

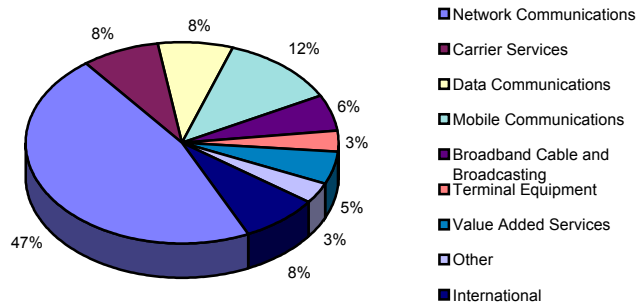
Deutsche Telekom's most significant investment projects during the 1990s were the expansion and modernization of the telecommunications infrastructure in the former East Germany, starting with German reunification in 1990, and the digitization of its entire telecommunications network, starting in the early 1990s. Both of these projects were completed during 1997.

The telecommunications sector in Germany was fully liberalized on January 1, 1998. Deutsche Telekom now faces intense competition and is required to offer competitors access to its fixed-line network at regulated interconnection rates. The operation of networks (including cable networks) for all telecommunications services other than public fixed-line voice telephony had been fully opened to competition on August 1, 1996.

### **Deutsche Telekom's Revenues by Business Area and Geographic Region**

Deutsche Telekom's consolidated net revenues are derived principally from telephone network communications services, which consist primarily of domestic and international public fixed network voice telephony services. Deutsche Telekom also obtains revenues from interconnection services for domestic and international network operators, domestic and international services in the field of data communications and systems solutions, and mobile communications services. Broadcasting and broadband cable, the supply and sale of terminal equipment, value-added services, and other ancillary services, including the online services offered by T-Online and other multimedia services, round out the range of products and services offered by Deutsche Telekom. Revenues from activities outside Germany are generated by Deutsche Telekom's foreign subsidiaries. The following chart shows revenues from each of Deutsche Telekom's business areas for 1999 expressed as a percentage of consolidated net revenues for that year.





Approximately 11 percent of Deutsche Telekom's revenues in 1999 were derived from activities outside Germany. For a breakdown of revenues by geographic region, see note 1 to the financial statements.

### Network Communications

Network communications—in essence, the provision of voice telephony services through the Deutsche Telekom fixed-line network—continues to be the main contributor to Deutsche Telekom's consolidated revenues and profits. In 1999, Deutsche Telekom generated net revenues of EUR 16.7 billion (47.2 percent of Deutsche Telekom's net consolidated revenues) and net income before taxes of EUR 2.3 billion from this area. The network communications business area includes access services and local, national long distance and international calling services as well as connections to mobile and online service providers. Other related services, such as directory assistance, public telephones, the supply of telephones and the handling of inbound international calls, are included in other business areas at Deutsche Telekom.

### Access

Deutsche Telekom's access services include providing homes, businesses and agencies in Germany with analog access lines, digital (ISDN) access lines and various supplementary services.

Standard access lines are connected to Deutsche Telekom's network through digital exchanges. Each standard access line provides a single telecommunications channel. Deutsche Telekom offers both basic ISDN access lines with two channels and primary ISDN access lines with thirty channels. ISDN allows a single access line to be used for a number of purposes, including voice, video telephony, data and facsimile transmission. ISDN also provides higher quality connections with faster transmission of signals and increases the capacity of the access network. Deutsche Telekom offers ISDN access lines nationwide and has the largest ISDN network in the world measured in terms of access lines.

As of December 31, 1999, Deutsche Telekom provided over 34.5 million standard analog access lines. In addition to these standard analog access lines, as of December 31, 1999, Deutsche Telekom had installed over five million ISDN access lines, representing a total of 13.3 million channels. Of this number, 7.3 million were connected with business customers and 6.0 million with residential customers. While business customers continue to account for a majority of the ISDN channels in service, ISDN channel growth is strongest among residential customers. In 1999, Deutsche Telekom achieved overall ISDN channel growth of 32 percent, representing 18 percent growth among business customers and 54 percent growth among residential customers.

The following table sets forth, for the periods indicated, more detailed information relating to access channels provided by Deutsche Telekom and penetration rates for standard analog lines and ISDN lines.

	<u>As of December 31,</u>				
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>
<b>Access Channels(1):</b>					
Total access channels (millions).....	47.8	46.5	45.2	44.2	42.0
<i>Of which:</i>					
Standard analog lines (millions)(2).....	34.5	36.4	37.8	39.0	39.2
ISDN					
Basic access lines (thousands)(3).....	5,442.4	3,996.9	2,831.2	1,918.3	846.4
Primary access lines (thousands)(3).....	81.2	70.0	56.0	45.6	35.0
Total ISDN channels (millions)(3).....	13.3	10.1	7.3	5.2	2.7
<b>Penetration(1)(4):</b>					
Standard access lines.....	42.1	44.4	46.1	47.6	47.9
ISDN channels.....	16.2	12.3	8.9	6.3	3.3
Total penetration rate.....	58.3	56.7	55.1	53.9	51.3

(1) Based on lines in service, including courtesy lines, service lines and lines for payphones.

(2) Each standard access line provides one access channel.

(3) A basic ISDN line provides two access channels and a primary ISDN line provides 30 access channels.

(4) Number of Deutsche Telekom lines or channels per 100 inhabitants. Figures for 1998 and 1999 calculated on the basis of an estimated population of 82 million. Figures may not add to 100 percent due to rounding.

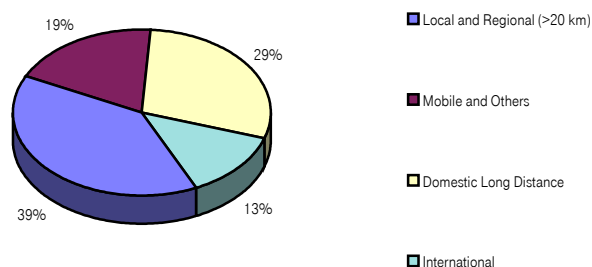
In 1999, Deutsche Telekom implemented special traffic charges for calls initiated from telephones connected to ISDN lines. Since customers with ISDN lines pay a higher monthly access fee and tend to make more and longer telephone calls than customers with analog lines, increasing the ISDN penetration rate among its customers is an important element of Deutsche Telekom's fixed-line strategy. For further information on Deutsche Telekom's tariffs for ISDN access lines, see "—Network Communications—Tariffs". While an increase in ISDN lines tends to result in a decline in the number of analog lines, due to a substitution effect, increased ISDN penetration contributes overall to higher fixed-line revenues.

Deutsche Telekom intends to use ISDN access lines as the basis for introducing innovative products. For example, with its T-ISDN mobile service, Deutsche Telekom was one of the first providers worldwide to introduce a "genuine" bundled product that integrates ISDN and mobile phone services. With this product, a customer has the same phone number for a fixed-line phone and a mobile phone and can answer calls on either phone, according to the customer's preference.

Because Deutsche Telekom is required to provide its competitors with unbundled access to the telephone lines running into its customers' premises at prices based on the cost of providing such service, Deutsche Telekom has begun to face competition in the access line market and expects such competition to increase over time. Technological innovations that may allow competitors economically to provide telecommunications services to customers without using existing telephone lines (e.g., cable, wireless, satellite or power line access) are expected to have the effect of further stimulating such competition.

### ***Overview of Calling Services***

Deutsche Telekom provides comprehensive local, national and international long distance fixed-line calling service to customers throughout Germany. The following chart indicates revenues from local calls, national long-distance calls, international calls and calls to mobile networks and others as a percentage of total calling revenues during 1999.



In 1999, net revenues from fixed-line calling services amounted to EUR 10.4 billion. Residential customers provided 69 percent of call revenue, while 31 percent was generated by business customers. Revenue from calls to mobile numbers rose 23 percent over the previous year's figure, while revenues from calls to online services grew by 34 percent.

Since January 1, 1998, the provision of fixed-line voice telephony services has been open to full competition. Deutsche Telekom does not yet face significant competition in the market for local calls for which an area code is required, although such competition is expected to increase as competitors begin to offer access services in the medium term. In 1999, competition still concentrated on long distance and international calls, both areas in which our competitors have made considerable inroads into the market. According to a report published by the Regulatory Authority for Telecommunications and Posts, Deutsche Telekom had a market share of approximately 60 percent in the combined domestic long-distance and international calling markets at year-end 1999. Fixed terms for interconnection, which particularly favor competitors that have not invested heavily in infrastructure, enabled competitors to benefit from Deutsche Telekom's infrastructure investments at low prices. In Germany, telephone customers are free to choose providers either through preselection – selecting one long-distance carrier to handle all domestic long distance and international calls on a default selection basis – or through call-by-call selection – selecting a carrier when such a call is made by dialing the carrier's numeric prefix before dialing the telephone number. Deutsche Telekom has countered the challenge posed by its competitors with sharply reduced tariffs and innovative, customer-oriented and reliable products and services.

#### *Domestic Traffic*

The following table shows certain statistical data regarding domestic telephone traffic.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/</u> <u>1998</u>	<u>1998/</u> <u>1997</u>
				<u>(% change)</u>	
Minutes from local calls (in millions).....	116,453	118,843	110,912	(2.0)	7.2
Minutes from domestic long distance calls (in millions) .....	38,121	45,260	48,699	(15.8)	(7.1)
Minutes from calls to mobile networks (in Millions) .....	5,290	4,043	2,972	30.8	36.0
Minutes from other services (in millions).....	18,819	7,890	4,243	138.5	85.9
of which connections to online services (in millions)(1).....	<u>18.630</u>	<u>7.744</u>	<u>4.156</u>	<u>140.6</u>	<u>86.3</u>
Total minutes from domestic calls (in millions)(1).....	<u>178,683</u>	<u>176,036</u>	<u>166,826</u>	<u>1.5</u>	<u>5.5</u>

- (1) For purposes of consistency with the presentation used in 1998, "connections to online services" includes minutes from calls to T-Online. However, revenues from calls made to T-Online on or after April 1, 1999 under many of T-Online's tariff plans are shown not under revenues from "network communications" but rather under revenues from "other services." For further information in this regard, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations – Network Communications". If the traffic corresponding to these revenues is subtracted from total minutes

from domestic calls shown above, total minutes from domestic calls decreased by approximately 4.5 percent from 1998 to 1999.

In 1999, Deutsche Telekom's customers generated 1.5 percent more domestic traffic minutes than in 1998. This growth was attributable largely to a substantial increase in minutes to online services and an increase in fixed-to-mobile traffic. However, the increase in minutes to online services includes calls to T-Online, although revenues from calls made after April 1, 1999 to T-Online under many of T-Online's tariff plans are shown under "other services." Adjusted for calls to T-Online for which the corresponding revenues are shown under "other services," minutes from domestic traffic decreased by approximately 4.5 percent, as the increase in fixed-to-mobile traffic was more than offset by a decline in long-distance minutes, which was due to a decline in market share resulting from competition, and by a decline in local traffic that resulted from the entry of competitors into this market and from competition from mobile networks.

The following table sets forth information relating to the number of domestic calls.

	<u>Year ended December 31,</u>			<u>Year ended December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
Domestic calls (in billions) .....	50.6	52.7	52.7	(3.9)	0.0
				(% change)	

#### *Outbound International Traffic*

The following table shows outbound international traffic in millions of minutes broken down by geographic regions in 1999. Total outbound international traffic in millions of minutes was 4,711 in 1998 and 4,813 in 1997.

	<u>December 31, 1999(1)</u>
Western/Central Europe and Mediterranean countries .....	3,109
USA/Canada .....	295
Others.....	456
Total.....	3,860

(1) Estimated outgoing minutes.

#### *Tariffs*

Tariffs charged by Deutsche Telekom for its fixed-line voice telephony services are subject to regulatory approval. Under the regulatory framework that applies to the German telecommunications sector, these tariffs will continue to be subject to regulation for as long as Deutsche Telekom is considered to be a market-dominant provider of these services. In January, 1998, tariffs for Deutsche Telekom's public fixed-line voice telephony services became subject to a price-cap regime. See "—Regulation—Special Requirements Applicable to Market-Dominant Providers—Pricing".

Telephone subscribers are charged an initial connection fee, monthly subscription fee, and traffic charges. Prices are set according to the distance called, the time of day and whether the day is a business day, a weekend or a public holiday. In the residential market, traffic charges are now mostly based on minute prices, except for local calls, where traffic charges are still based on charging units. The duration of a unit varies according to the calling plan being used – for example, Deutsche Telekom's "Business Call" tariffs are based on units of one second – and according to the day of the week and the time of day.

Subject to applicable regulatory limits, Deutsche Telekom intends to continue adjusting its tariffs to align its charges more closely with the preferences of its customer groups. For a discussion of regulatory developments and legal controversies affecting tariffs, see "—Regulation—Special Requirements Applicable to Market-Dominant Providers" and "Legal Proceedings".

### *Access Charges*

Revenue from access consists principally of monthly subscription fees charged to customers for providing access lines as well as one-time initial connection fees. The level of monthly subscription fees generally is higher for ISDN access lines than for standard access lines. Access charges remained constant from 1996 through the first quarter of 2000. On April 1, 2000, Deutsche Telekom reduced standard ISDN monthly subscription fees. Deutsche Telekom's initial connection fees and monthly subscription fees (including value-added tax), with effect as of April 1, 2000, are shown in the following table.

Standard connection fee.....	DM 100.86
Standard monthly subscription fee.....	DM 24.81
ISDN connection fee(1).....	DM 100.86
Standard ISDN monthly subscription fee.....	DM 44.89
“Komfort” ISDN monthly subscription fee(2).....	DM 49.90

- (1) Deutsche Telekom charges an additional fee of DM 100.86 to customers who choose to have Deutsche Telekom install ISDN on their premises.
- (2) Consists of a standard ISDN connection and certain additional value-added features.

### *Traffic Charges*

Following the complete liberalization of Germany's telecommunications market in 1998, there has been intense competition in fixed-line telephony, in particular in the long-distance and international calling markets. Intense price competition continued in 1999, leading to falling margins in this segment of the telecommunications market and to the beginning of consolidation among some of Deutsche Telekom's competitors. In January 1999, Deutsche Telekom reduced the charges for calls in its regional and national calling zones by up to 62 percent. T-ISDN customers particularly benefited from these price reductions. Deutsche Telekom reduced off-peak long distance prices in April 1999 and the standard rate for international calls to many European countries, USA and Canada in July 1999. In February 2000, Deutsche Telekom reduced rates for calls from its fixed network into its mobile telephone network, and in March 2000, Deutsche Telekom again significantly cut rates for domestic calls, especially for regional and national calls. For a detailed description of new tariffs introduced in 1999, see page 45 of the 1999 Annual Report.

To increase customer loyalty in the current competitive environment, Deutsche Telekom introduced a number of new optional rate packages and access bundles in 1999. Some of these packages, such as Deutsche Telekom's AktivPlus, Select 5/30 and Select 5/10 rate packages, are designed to give residential customers alternatives to the standard tariff rates based on individual needs and usage patterns. The T-ISDN 300 package consists of a T-ISDN “Komfort” access line combined with reduced calling charges and discounted monthly subscription fees. Other new optional rate packages, such as the BusinessCall 500 and BusinessCall 700 packages, give business customers the benefit of a basic rate along with billing units of one second. With the BusinessCall rate packages, the prices of international calls to many countries within Western Europe and North America were reduced in July 1999 to a standard rate of 40 pfennigs per minute. These prices were then further reduced in February 2000 to a standard rate of 19 pfennigs per minute.

Deutsche Telekom has also introduced bundled rates for T-ISDN and T-Online, which enable T-ISDN customers to have access to the Internet in exchange for usage-related fees of six pfennigs per minute. These fees are divided evenly between online charges and phone charges. No basic access fee is charged as part of this package.

As a result of Deutsche Telekom's tariff initiatives and discount plans, the average cost for calls outside the local zone has declined, as illustrated by the following table.

	<u>Year ended December 31.</u>		
	<u>1999</u>	<u>1998</u>	<u>1999/1998</u>
	DM per minute (1)		(% change)
City/Local .....	0.07	0.07	-
Domestic long distance .....	0.15	0.28	(46.4)
International .....	0.71	0.87	(18.4)
Fixed to mobile .....	0.65	0.70	(7.1)

(1) Revenue for each type of service divided by corresponding number of minutes.

### ***Local and National Call Charges***

The following table shows Deutsche Telekom's local and national long distance call charges per minute, based on a call having a duration of one billing unit, as in effect on March 1, 2000. Because different calling plans have different billing units, the amounts shown in this table do not reflect the price of a one-minute call in all cases. Unless otherwise indicated, billing units have a duration of one minute.

	<u>Peak(1)</u>	<u>Off-Peak(2)</u>	<u>Evening &amp; Night(3)</u>	<u>AktivPlus Peak(7)</u>	<u>AktivPlus Off-Peak(7)</u>
	DM	DM	DM	DM	DM
Analog Local (less than 20 km) .....	0.12(4)	0.12(5)	0.12(6)	0.06	0.03
Analog Long distance (more than 20 km) .....	0.24	0.12	0.06	0.12	0.06
ISDN Local (less than 20 km) .....	0.12(4)	-	0.12(6)	0.06	0.03
ISDN Long distance (more than 20 km) .....	0.18	-	0.06	0.12	0.06

- (1) Analog: Weekdays—Local 9:00-18:00; Long distance 7:00-18:00. ISDN: Weekdays—Local 7:00-18:00; Long distance 7:00-18:00.  
(2) Analog Weekdays—Local: 5:00-9:00, 18:00-21:00; Long distance: 18:00-21:00.  
(3) Analog: Weekdays—Local 21:00-5:00; Long distance: 21:00-7:00. ISDN: Local 18:00-7:00; Long distance 18:00-7:00.  
(4) Based on a billing unit of 90 seconds.  
(5) Based on a billing unit of 150 seconds.  
(6) Based on a billing unit of 240 seconds.  
(7) Optional rate package: AktivPlus, with an additional monthly subscription fee of DM 9.90. Peak: 9:00-18:00, Off-peak 18:00-9:00.

### ***International Call Charges***

Within each tariff plan, Deutsche Telekom's international traffic charges are based on the same tariff unit used for domestic telephony charges. At present, the international tariffs are specified for every country, with identical tariffs for countries in some geographical areas. Deutsche Telekom's international tariffs are subject to the same regulatory regime as its domestic tariffs. See "—Regulation—Special Requirements Applicable to Market-Dominant Providers—Pricing".

A key component of Deutsche Telekom's 1999 price campaign was the reduction of calling charges for international calls to many countries in Europe and North America. In June 1999, a standard rate of 48 pfennigs per minute, 24 hours a day, for calls to 22 countries was introduced. Rates were reduced to between 12 and 36 pfennigs per minutes for calls to those parts of Germany's neighboring countries that lie closest to the border with Germany. In February 2000, Deutsche Telekom introduced significant rate cuts for international calls to more than 50 countries.

The following table shows the cost of a one-minute call to selected destinations as of February 1, 2000 under some of Deutsche Telekom's major tariff packages.

Foreign Country	Standard Tariff(1)(2)		AktivPlus(1)(2)		BusinessCall(1)(3)	
	Old Price in DM	New Price in DM	Old Price in DM	New Price in DM	Old Price in DM	New Price in DM
Belgium, U.K., Denmark, France, Italy, Netherlands, Spain Switzerland, USA	0.48	0.24	0.39	0.19	0.40	0.19
Turkey	0.84	0.48	-	0.39	0.73	0.39
Greece	0.84	0.48	-	-	0.73	0.39
Poland	0.48	0.48	-	-	0.83	0.39
Russia	1.20/3.12	0.72	-	-	1.04/2.71	0.61
Sweden	0.96	0.24	-	-	0.83	0.19

(1) Minute prices exclude value added tax and are rounded in some cases.

(2) Calculated based on billing units of one minute.

(3) Calculated based on billing units of one second.

Deutsche Telekom's settlement payments to foreign carriers for termination of international calls originated in Deutsche Telekom's networks represent a significant cost of providing international calling services. For further information on settlement payments, see "—Carrier Services".

### ***Innovative Service Offerings***

Deutsche Telekom offers its customers a variety of products and services in addition to basic voice telephony, such as call waiting, call forwarding, conference calling nationwide, caller identification and callback when a caller receives a busy signal, as well as T-NetBox, Deutsche Telekom's network-based digital answering machine. Part of Deutsche Telekom's competitive strategy is to offer customers a range of innovative and attractive products intended both to secure customer loyalty and to enhance Deutsche Telekom's revenues.

During 1999, Deutsche Telekom stepped up its marketing efforts for virtual private networks solutions for business customers under the brand name T-VPN, an offer which was launched in 1998. The T-VPN package consists of standardized modules that can be combined in different configurations to produce applications that are tailored to the needs of particular customers. One of these modules, under the brand name "Centrex", enables Deutsche Telekom to introduce services in its networks that are normally provided only by private automated branch exchanges installed on customer premises. GVPN, the international component of T-VPN, was introduced in May 1999. GVPN offers solutions to the international needs of Deutsche Telekom key accounts, enabling customers to carry out all of their international communications with Deutsche Telekom within a closed user group. Deutsche Telekom has been offering GVPN through the Global One network. Transition arrangements relating to Deutsche Telekom's disengagement from Global One are designed to ensure continuity of service for Deutsche Telekom's Global One customers for up to two years.

### **Carrier Services**

Many new providers have entered the German telecommunications market since the full liberalization of the market at the beginning of 1998. Most of these competitors use Deutsche Telekom's network and related services as the basis for providing their own services to their customers. These special services to competitors are provided by the carriers services business area. This business area is also responsible for the company's

international inter-carrier business, which includes terminating incoming international calls to its customers. This business area’s net revenue in 1999 was EUR 2.9 billion, or 8.1 percent of the consolidated revenues of Deutsche Telekom. This represents an increase of 79 percent over 1998.

***Domestic Interconnection and Local Loop Access***

The products and services provided by the carrier services business area consist primarily of interconnection services for operators of fixed networks and mobile communications networks, carrier-specific transmission paths and access to the so-called “unbundled” subscriber line (or “unbundled local loop”).

In the national market, the terms on which Deutsche Telekom provides services to competitors are essentially determined by the Regulatory Authority. The interconnection rates charged by Deutsche Telekom during 1999 were set by the Federal Ministry of Posts and Telecommunications, the predecessor to the Regulatory Authority, in September 1997. In December 1999, the Regulatory Authority approved new interconnection rates that will apply through January 31, 2001, which are on average approximately 24 percent lower than the previously applicable interconnection rates. See “—Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection.” The terms for interconnection of Deutsche Telekom’s telephone network with networks of other national providers are contained in bilateral contracts. At the end of 1999, Deutsche Telekom had signed 95 such agreements. An additional 50 companies had submitted requests for negotiations at that date. The total number of leased lines provided to carriers at year end, i.e., transmission paths that are made available to competitors in the fixed-line network, rose by 43 percent in 1999 in comparison with the previous year.

The terms of interconnection established by the Regulatory Authority are very important, since they strongly influence the level of competition in the market. Since 1998, Deutsche Telekom has been conducting discussions with the Regulatory Authority in order to achieve a differentiation in interconnection charges between competitors who have made substantial investments in their own networks and those who have only few points of interconnection. See “—Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection” for a discussion of regulatory developments relating to interconnection charges.

The following table shows the interconnection rates that were in effect until the end of 1999.

	<u>Standard</u> <u>(9 a.m. to 9 p.m.)</u>	<u>Off-Peak</u> <u>(9 p.m. to 9 a.m.)</u>
	(Pfennigs per minute)	
Local .....	1.97	1.24
Less than 50 km .....	3.36	2.02
Between 50 km and 200 km.....	4.25	2.35
More than 200 km.....	5.14	3.16

The following table shows the new rates approved by the Regulatory Authority in December 1999 for the period from January 1, 2000 to January 31, 2001:

	<u>Standard</u> <u>(9 a.m. to 6 p.m.)</u>	<u>Off-Peak</u> <u>(6 p.m. to 9 a.m.)</u>
	(Pfennigs per minute)	
Local .....	1.71	1.08
Less than 50 km .....	2.92	1.75
Between 50 km and 200 km.....	3.69	2.04
More than 200 km.....	4.47	2.75

These new rates can be expected to offset to some extent the effect on revenues of any future increase in interconnection traffic on Deutsche Telekom’s network.

Deutsche Telekom is required to offer competitors so-called “unbundled” access to the subscriber line (“bare wire”) so that they have direct access to the customer. In February 1999, the Regulatory Authority set DM 25.40 as the maximum price that Deutsche Telekom was permitted to charge for such access for the period



between publication of the decision and March 31, 2001. Both Deutsche Telekom and its competitors have challenged the decision of the Regulatory Authority in court. See “—Regulation—Special Network Access and Interconnection—Local Loop Access” for a discussion of regulatory developments relating to subscriber access.

**International Call Termination**

The carrier services business area offers international network operators the opportunity to deliver their voice traffic to parties in Germany via Deutsche Telekom’s network. In addition, this business area purchases termination services from foreign carriers for Deutsche Telekom’s outbound international traffic, provides interconnection services to domestic competitors for termination of outgoing international calls and provides carriers’ carrier transit services for calls that originate outside Germany and are routed through Germany for termination in a third country. At the end of 1999, Deutsche Telekom maintained business relationships with more than 300 foreign telephone companies.

The following table shows the volume of calls originated outside Germany that were terminated in Germany by means of Deutsche Telekom’s network in the periods indicated.

<u>Call Origin</u>	<u>Year ended December 31,</u>		
	<u>1999(1)</u>	<u>1998</u>	<u>1997</u>
	(billions of minutes)		
Europe(1) .....	4.861	4.763	4.609
USA/Canada .....	0.962	0.912	0.834
Other regions .....	0.425	0.361	0.175
<b>Total</b> .....	<u>6.248</u>	<u>6.036</u>	<u>5.618</u>

(1) Includes all European countries, North Africa, Turkey, Israel and Lebanon.

Since Deutsche Telekom is viewed by the Regulatory Authority as a market-dominant provider in many markets, prices charged by Deutsche Telekom for most services provided to service providers and carriers are subject to regulatory approval. The Regulatory Authority has determined, however, that Deutsche Telekom is no longer dominant in the market for interconnection to foreign countries. For further information on this topic, see “—Regulation—Special Requirements Applicable to Market-Dominant Providers.”

Deutsche Telekom pays for the use of networks of carriers in foreign countries for outgoing international calls and receives payments from other carriers for the use of its network for incoming international calls. Traditionally, these payments have been made pursuant to settlement arrangements under the general auspices of the International Telecommunications Union (ITU). Deutsche Telekom has historically been a net debtor under these arrangements (i.e., payments made by Deutsche Telekom for outgoing international traffic have exceeded payments received for incoming international traffic) and, consequently, has benefited from the lowering of settlement rates in recent years. Deutsche Telekom expects further reductions in the settlement rates, particularly between Germany and other members of the European Union (EU). Settlement payments are calculated using a currency basket in which U.S. Dollars have the greatest weight and settlement payments themselves are generally denominated in U.S. Dollars. In 1999, Deutsche Telekom’s average bilateral settlement rates per minute decreased by 24 percent in comparison with the previous year.

**Data Communications and Information and Communications Systems**

Deutsche Telekom’s data communications and information systems business area involves the use of Deutsche Telekom’s network for the transport of large quantities of data and the use of modern data communications technology in the design of information and communications systems solutions for large, complex business customers.

Data transmission services and systems solutions based on those services represent one of the fastest growing areas in the telecommunications industry. Deutsche Telekom is therefore focusing on this area as one of the four pillars of its growth strategy. As a result of expanding Internet usage and an increase in the number

of companies that have multiple offices connected via company intranets, the volume of data traffic in global telecommunications networks is growing rapidly. Deutsche Telekom expects it to exceed the volume of voice traffic in those networks in the future. Deutsche Telekom is responding to increasing customer requirements in this area by expanding its network platforms for data transmission and by offering a broad portfolio of products and services and customized solutions. The data communications services offered by Deutsche Telekom are increasingly incorporated into integrated services such as corporate networks and business-to-business Internet services.

This business area’s net revenue in 1999 was EUR 2.8 billion (or 8.0 percent of the consolidated revenues of Deutsche Telekom), which represents an increase of 11.5 percent over 1998. This increase was achieved despite very strong downward pressures on price in the data communications area.

**Data Communications**

Among the data communications services that Deutsche Telekom offers are dedicated leased lines and data transmission services ranging from packet switching to state-of-the-art frame relay and Asynchronous Transfer Mode (ATM) communications, as well as Internet applications for business customers.

*Leased Lines*

Deutsche Telekom is the leading provider of leased lines in Germany. Deutsche Telekom markets fixed data connections under the product name "LeasedLink". This product includes standard leased lines, managed leased lines for data communications and international leased lines. Leased lines are used by business customers to assemble their own private networks and by telecommunications service resellers to establish networks to offer telecommunications services. Deutsche Telekom reduced tariffs for its "LeasedLink" product in 1999 by up to 29 percent for some types of connections.

The trend among Deutsche Telekom’s customers toward the use of digital leased lines, which permit much higher transmission rates than analog connections, continued in 1999. As a result, the LeasedLink area has seen a marked trend toward broadband transmission rates. In 1999, the bandwidth Deutsche Telekom marketed in digital standard leased lines for data communications grew by 2.1 percent.

The following table shows the number of digital standard leased lines provided by Deutsche Telekom at the dates indicated.

<u>Number of Leased Lines</u>	<u>At December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
Digital Standard Leased Lines:			
64 Kbits/sec.....	35,460	34,847	29,958
2 Mbits/sec.....	8,960	8,665	7,483
More than 2 Mbits/sec .....	<u>95</u>	<u>96</u>	<u>57</u>
Total.....	<u>44,515</u>	<u>43,608</u>	<u>37,498</u>

The following table shows the monthly rental charges that applied to Deutsche Telekom's leased lines at the dates indicated. The figures shown in the following table represent averages that have been derived from actual prices that Deutsche Telekom charges its customers, on the basis of methodology developed by the Organization for Economic Cooperation and Development for the purpose of facilitating comparisons between leased line providers in different countries. Accordingly, these figures do not represent the actual prices that Deutsche Telekom charges to its customers.

<u>Tariff rates (in DM/km)</u>	<u>At December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
Digital Leased Lines:			
64 Kbit/s.....	14.82	14.88	16.36
2 Mbit/s.....	72.57	73.15	81.72
More than 2 Mbit/s.....	439.22	500.84	636.91

In cooperation with other international carriers, Deutsche Telekom offers international leased lines to its multinational customers, with the convenience of single-end ordering and billing.

### ***Data Transmission***

*“X-25”-based Data Transmission Service.* Deutsche Telekom continues to offer a packet-switched data transmission service based on the well-established X.25 protocol. Although they are relatively slow, X.25-based packet-switched services permit highly reliable data transmission while offering easy access through a choice of access modes, including dial-up access across various technologies, such as ISDN. Deutsche Telekom's packet-switched services are available for a wide variety of applications, including database applications, electronic funds transfer applications and e-mail. As of the end of 1999, Deutsche Telekom's customers were using some 75,000 X-25-based lines and 61,000 access authorizations, which represented an decrease of 5.9 percent compared to year-end 1998.

*FrameLink Plus.* Deutsche Telekom's FrameLink Plus service – which is based on frame relay technology – is especially designed to accommodate data communications that include high-volume bursts. FrameLink Plus is suitable both for linking LANs (Local Area Networks) and for building corporate networks. Instead of leasing a high-capacity leased line in order to accommodate occasional or intermittent traffic bursts, customers using FrameLink Plus pay for sufficient capacity to satisfy their day-to-day data requirements and are provided burst capacity up to the access rate to accommodate peaks in their data communications needs. Through FrameLink Plus, Deutsche Telekom offers frame relay service at a variety of access rates, ranging from 64 kbit/sec to 2 Mbit/sec.

In 1999, Deutsche Telekom further simplified FrameLink Plus rates structures for its customers and implemented price reductions of up to 30 percent in response to intense competition in this market. Deutsche Telekom also extended the FrameLink Plus portfolio by introducing a broader range of transmission speeds.

*City-Netze.* Deutsche Telekom offers customized high-speed network solutions by means of its “City-Netze”, which are regional networks of fiber optic lines. In 1999, Deutsche Telekom inaugurated an additional two City-Netze networks, thereby increasing the total in operation to 38. Customers normally use City-Netz networks as a basis for comprehensive telecommunications solutions. In many cases, customers use these broadband regional networks as access platforms for services such as “T-ATM” or “T-InterConnect”.

*T-ATM.* Deutsche Telekom's offers high speed Asynchronous Transfer Mode (ATM) data transmission service by means of its T-ATM service, which was accessible nationwide throughout Germany at 50 locations as of December 31, 1999. Since 1998, Deutsche Telekom has offered switched connections via T-ATM. Significant growth in the number of T-ATM connections took place in 1999, while average prices for T-ATM services remained relatively constant. T-ATM is one of the world's most modern telecommunications structures. Deutsche Telekom is one of the market leaders in Germany in the use of ATM technology, which permits voice, text, data and video communications over one line and which supports flexible, cost-effective use of bandwidth resources.

Transition arrangements relating to Deutsche Telekom's disengagement from Global One are designed to permit continuity of service for up to two years for Deutsche Telekom's customers that have been making use of the Global ATM service of Global One. This service provides broadband telecommunications links to 40 countries as of December 31, 1999.

*T-InterConnect.* Deutsche Telekom offers a high-performance IP-based network platform for Internet and Intranet communications applications under the brand name "T-InterConnect." This platform can be used as the basis for private corporate networks. At December 31, 1999, the platform consisted of 74 national network nodes redundantly connected via 155 Mbit/s links in the core network. T-InterConnect, which can be accessed nationwide at "City" (local) rates, features access bandwidth ranging from 64 kbit/s to 34 Mbit/s, and up to 2.4 Gbit/s after March 2000, to support Internet and intranet solutions for the customers of Deutsche Telekom.

In 1999, Deutsche Telekom was one of Germany's largest Internet service providers for business customers. The volume of traffic transported on the T-InterConnect platform almost doubled in 1999 as compared to 1998. Deutsche Telekom reduced its rates for T-InterConnect services by up to 50 percent in 1999.

To achieve better integration with the international Internet network, Deutsche Telekom increased the "peering capacity" of its network almost fourfold in 1999 and entered into "peering" agreements with major Internet service providers worldwide. "Peering" refers to the exchange of information between two separate Internet networks.

*Intranet Solution.* Using the T-InterConnect and FrameLink Plus platforms, Deutsche Telekom provides customers with customized intranet solutions, under the general brand name "Intranet Solution." These solutions feature dial-in access through ISDN, through Deutsche Telekom's T-D1 mobile communications network and through the Datex-P service. Starting in 1999, Deutsche Telekom also began offering Intranet Solution on the basis of T-ATM and "T-DSL". Intranet solutions based on T-InterConnect were developed for a growing number of customers in 1999, and Deutsche Telekom also began offering "extranet" solutions through which business customers are linked to third parties such as dealers or suppliers. Deutsche Telekom also launched its "Global Intranet" solutions in 1999, through which Deutsche Telekom's business customers can permit their employees worldwide to access company intranets.

*T-DSL.* ADSL technology (Asymmetrical Digital Subscriber Line) allows for the transmission of data at very high rates using conventional telephone lines. Deutsche Telekom continued to develop the potential of ADSL-based broadband communications for its customers in 1999 under the general brand name "T-DSL". For example, Deutsche Telekom made it possible in 1999 for customers to access its T-InterConnect and T-ATM data communications platforms via T-DSL connections. Due to the relatively low cost of this new access technology, T-DSL enables Deutsche Telekom to bring the benefits of fast Internet communications and innovative multimedia applications to new customer segments, in particular small and medium-sized business customers.

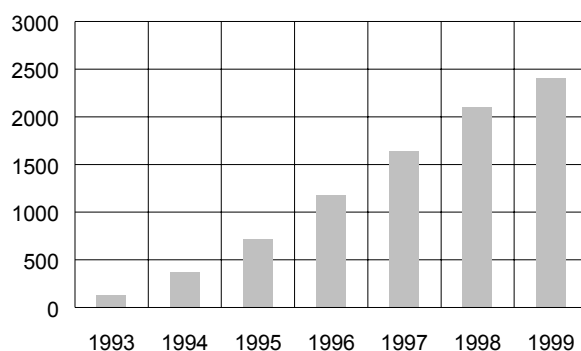
To combine the benefits of rapid data communications and fast Internet access with enhanced voice telecommunications via ISDN, Deutsche Telekom began offering T-DSL in a package with ISDN to its customers in April 1999. Since ADSL technology also permits fast access to the Internet by allowing customers to receive data over ordinary telephone lines at a transfer rate of up to 768 kbit/sec for residential customers and up to 6 Mbit/sec for business customers, Deutsche Telekom introduced a package consisting of T-DSL together with T-Online, Deutsche Telekom's Internet access service, in July 1999.

*T-LAN.* Through its subsidiary DeTeLine, Deutsche Telekom configures local area networks (LANs) for its customers under the brand name T-LAN. The T-LAN product portfolio was extended in 1999 to include specific solutions for small and medium sized business that permit voice transmission over local computer networks.

*Telekom Designed Networks.* Telekom Designed Networks (TDN) are a central component of the data communications systems solutions services offered by Deutsche Telekom. With TDNs, Deutsche Telekom

offers its large corporate customers communications solutions that are tailored to specific customer requirements. Under TDN contracts, Deutsche Telekom takes charge of the design and installation of the network and provision of comprehensive operational services, including network management and complete ongoing service.

In 1999, the number of large corporate customers with TDN continued to grow. At the end of 1999, a total of 2,410 TDN contracts had been signed, 302 more than at the end of the previous year. The following chart shows the numbers of TDN contracts that Deutsche Telekom had entered into on the dates indicated.



Deutsche Telekom considers these contracts to be strategically important as a means of creating longer-term relationships with large business customers, since the duration of these contracts is typically between two and five years.

Deutsche Telekom's systems solutions business is conducted through Deutsche Telekom Systemlösung GmbH (DeTeSystem), a subsidiary of Deutsche Telekom whose purpose is to provide intensive support to large companies and institutions with major telecommunications expenditures. During 1999, to increase its effectiveness in the market for international business customers, Deutsche Telekom combined its entire international systems solutions sales team under DeTeSystem. DeTeSystem hired a number of new sales experts thus increasing the number of employees of DeTeSystem by approximately 10 percent.

Deutsche Telekom has been providing international data communications solutions in cooperation with Global One. Transition arrangements relating to Deutsche Telekom's disengagement from Global One are designed to ensure continuity of service for up to two years for Deutsche Telekom's Global One customers. Deutsche Telekom intends, however, to build up its own international network as the basis for providing international systems solutions for its customers.

### ***Information and Communications Systems***

Integrated solutions that combine telecommunications and information technology for complex personal computer (PC) and server infrastructures are becoming increasingly important for companies in many industries. In 1999, Deutsche Telekom created a new business area, information and communications systems, which combines its information technology and telecommunications services – in particular those of its subsidiaries Deutsche Telekom Computer Service Management GmbH (DeTeCSM), T-Nova Deutsche Telekom Innovationsgesellschaft mbH (T-Nova) and Deutsche Telekom Kommunikationsnetze GmbH (DeTeLine) – with services of external suppliers to create customized solutions. The business area formerly designated as "systems solutions" has been divided between the data communications area and the newly founded information and communications systems area. Deutsche Telekom aims to become one of Germany's leading information technology suppliers over the next several years. Deutsche Telekom took an important step in this direction in December 1999 with the formation of a cooperation with Unisys for the provision of information technology systems.

## **Mobile Communications**

Mobile communications is one of the most rapidly expanding areas of the global telecommunications industry. Deutsche Telekom expects that both mobile voice telephony and, to an increasing extent, mobile data communications and multimedia applications will experience significant growth in coming years. As a result, Deutsche Telekom is focusing on the mobile communications area as one of the four pillars of its growth strategy. The first major step in this direction was the bundling of substantially all of Deutsche Telekom's European mobile telecommunications subsidiaries (other than the Westel companies) under a newly formed holding company, T-Mobile International AG, which took retroactive effect from January 1, 2000.

For 1999, Deutsche Telekom's mobile communications business area included the activities of Deutsche Telekom MobilNet GmbH, (T-Mobil), Deutsche Telekom's German mobile communications subsidiary. The activities of non-German mobile phone subsidiaries, including the Austrian company max.mobil. and the British company One 2 One, are discussed below under "—International."

Deutsche Telekom's mobile communications business area generated revenue of EUR 3.9 billion (11.0 percent of the consolidated revenue of Deutsche Telekom) and net income before taxes of EUR 1.0 billion in 1999. Approximately 85.3 percent of the consolidated revenues of this business area in 1999 were derived from mobile telephone service, with the remaining 14.7 percent derived from handset sales and from the sale of paging and other services.

With 9.2 million mobile phone subscribers in its two networks at December 31, 1999, including 9.1 million digital mobile phone subscribers, Deutsche Telekom estimates that it had a market share in the overall German mobile telephony market of approximately 39.4 percent and a market share of approximately 39.0 percent in the German digital mobile telephony market at that date.

Viewed as a separate company, T-Mobil reported revenues of EUR 5.0 billion in 1999. The difference between this figure and revenue reported for the mobile communications business area results from use of the T-Mobil network for termination of calls originating in Deutsche Telekom's fixed network.

Deutsche Telekom currently plans to have T-Mobile International AG become a publicly traded subsidiary in the fall of 2000, with Deutsche Telekom retaining a controlling shareholding.

### ***Mobile Telephone and Data Services***

#### ***T-D1***

Deutsche Telekom offers digital mobile telephone services by means of its T-D1 digital network, which is based on the GSM (Global System for Mobile Communications) standard. Approximately 82 percent of revenues from Deutsche Telekom's mobile communications business area were derived from T-D1 in 1999. This figure does not include revenues from sales of handsets.

The importance of digital mobile communications networks in Germany has grown steadily since the T-D1 network went into operation in July 1992. The GSM standard, which Deutsche Telekom played a major role in developing, is now the technical basis for well over 200 digital mobile communications networks around the globe.

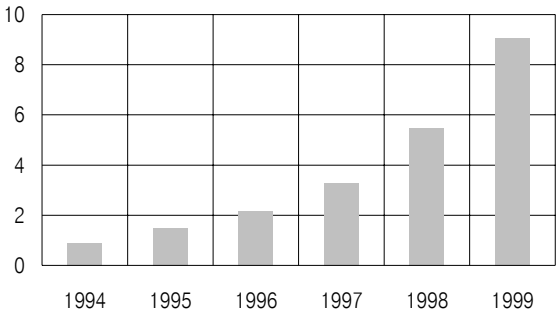
Network quality is one of the key factors affecting T-Mobil's business. To maintain network quality in light of strong growth in numbers of customers, T-Mobil continued to expand its GSM network during 1999. In the course of the year, the number of base stations in the T-D1 network increased from about 13,500 to about 25,000. At year-end 1999, the T-D1 network had 581 base station controllers and 46 switches. The investments made by T-Mobil in connection with network expansion in 1999 amounted to approximately EUR 0.7 billion. T-Mobil plans to continue this expansion in the coming year and has budgeted more than EUR 0.8 billion for investment in the T-D1-network in 2000. The network is expected to feature a total of around 37,000 base stations by the end of 2000.

In October 1999, T-Mobil successfully bid for additional mobile communications frequencies in the 1800 MHz range. The additional frequencies will permit T-Mobil to expand significantly the capacity of the T-D1 network and to offer services, such as data applications, that require higher transmission volumes. These frequencies were made available first in high-density urban areas starting in February 2000.

Prior to 1999, Deutsche Telekom had entered into roaming agreements with 121 operators in 75 countries, which in principle allow T-D1 subscribers to make and receive calls while abroad on the same mobile phone they use in Germany. In 1999, Deutsche Telekom further expanded the global coverage of the T-D1 network by entering into 44 new roaming agreements with GSM operators, with particular emphasis on operators of GSM 1800 networks in Europe and GSM 1900 networks in the United States. In the summer of 1999, T-Mobil began to provide national roaming service for VIAG Interkom subscribers.

Demand for mobile data communications services increased substantially during 1999. During December 1999, for example, the T-D1 network carried approximately 300 million “short messages”. Since March 1999, T-D1 customers can use their mobile phones to access a number of programs that provide information, such as news, stock quotes, travel information or schedules for entertainment events. Deutsche Telekom expects that demand for mobile data services will grow substantially in the coming years.

*Subscribers.* At the end of 1999, the T-D1 network had approximately 9.1 million subscribers, or 3.6 million (66 percent) more than it had a year earlier. This growth is generally attributable to strong demand for mobile services, and T-Mobil contributed to this demand with new products and services, a number of pricing campaigns and a customer-oriented pricing structure. The following chart shows the number of T-D1 customers at the end of each year indicated, in millions.



The following table sets forth the average number of subscribers in the T-D1 network for the periods indicated.

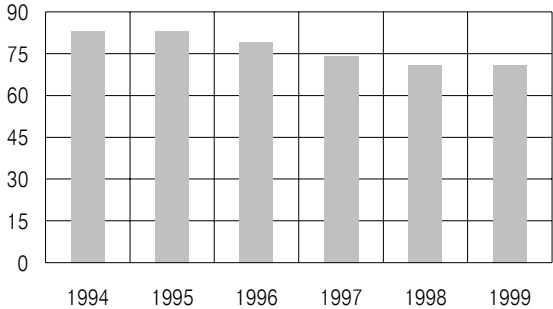
	Year ended December 31,				
	1999	1998	1997	1999/ 1998	1998/ 1997
Average number of subscribers (in thousands) T-D1(1) .....	6,918	4,217	2,663	63.9	58.4
Average number of subscribers (in thousands) T-D1(2) .....	7,271	4,375	2,721	66.8	60.1

- (1) Represents an average of monthly averages.
- (2) Represents the average of number of subscribers at year-end and the number of subscribers at the beginning of the year.

T-Mobil had a churn rate in 1999 of approximately 13 percent, as compared to 15 percent in 1998. The churn rate for any given period represents the number of T-Mobil customers whose service was discontinued during that period due to a payment default or who voluntarily gave up a mobile telephony service during that period, expressed as a percentage of the average number of customers during that period. Deutsche Telekom estimates that the average churn rate during 1999 for domestic competitors such as D2 was 13 percent and for E-Plus was 18 percent.

The reduction in T-Mobil’s churn rate from 1998 to 1999 was expected due to rapid growth in the number of new customers, which was greater than growth in the number of customers whose contracts were expiring. The probability that a customer will voluntarily terminate T-Mobil mobile service is highest at the time when the customer’s contract expires. T-Mobil believes that measures taken during 1999, such as the development of systems to identify and contact customers who are likely to give up T-Mobil service when their contracts expire and programs to win back customers who have given up T-Mobil service, also contributed to some extent to the reduction in churn, despite the fact that a number of 24-month contracts signed in 1997 expired in 1999. Due to the highly competitive nature of the mobile communications business, however, churn is likely to rise in future periods.

*Traffic.* The following table shows average monthly outgoing traffic per T-D1 subscriber for the years indicated, in minutes per customer per month.



T-Mobil entered into an agreement with VIAG Interkom in 1999 which provides for the purchase of a significant number of bulk minutes for national roaming purposes by VIAG Interkom. This agreement, which has been approved by the Regulatory Authority, has led to increased utilization of the T-D1 network, particularly in rural areas. T-Mobil does not expect this agreement to lead to any capacity constraints. T-Mobil aims to use revenues from this arrangement for measures to improve its market position. The contract with VIAG Interkom expires in 2009.

*Tariffs.* The customers Deutsche Telekom serves directly are billed one-time installation charges, monthly rental charges and call charges for outgoing traffic. Independent service providers purchase mobile telephone services from T-Mobil at a discount, resell those services and bill subscribers directly at rates they set independently. During 1999, traffic charges (including those paid by independent service providers) accounted for approximately 69 percent and monthly rental charges and initial connection fees together accounted for approximately 31 percent of net revenues generated by T-D1 (excluding revenues from sales of digital handsets).

Tariffs for subscribers serviced directly by T-Mobil are set by T-Mobil, although they would be subject to regulatory review if T-Mobil were deemed to have a dominant position in relevant markets. See “—Regulation—Special Requirements Applicable to Market-Dominant Providers”. During 1999, T-Mobil promoted the development of the German GSM market with a series of tariff innovations. In March 1999, T-Mobil became the first network operator in Germany to introduce optional “City” rates, which provide discounts on calls within a given local area to customers that select this option, and discounted weekend rates. In 1999, T-Mobil also introduced options relating to the length of the billing unit for some existing tariffs. Many of T-Mobil’s tariff initiatives are intended to tailor tariffs to the needs of specific customer groups. Additional tariff initiatives are planned for 2000.

The following table provides information on the basic tariff packages that T-Mobil made available to individual T-D1 customers as of December 31, 1999, giving effect to the tariff initiatives described above.



All prices include VAT

### Calling Plans

	<i>Prepaid</i>					
	Telly	TellyPlus	ProTel	ProTel DataOnly	Xtra	YoYo
in DM						
One-time connection fee	49.95	49.95	49.95	49.95	0.00 *	0.00*
Monthly rental fee						
for 60/1-second intervals (1)	24.95	-	64.95	-	-	-
for 10-second intervals	29.95	49.95	69.95	23.95	0.00	0.00
<b>Call charges (per minute) (2)</b>						
National – mobile to fixed						
Daytime (3)	1.29	0.79	0.39	0.68	1.69	1.19
Nighttime (4)	0.39	0.39	0.39	0.39	0.69	1.19
National – mobile to mobile (5)						
Daytime (3)	0.68	0.68	0.39	0.68	0.69	1.19
Nighttime (4)	0.39	0.39	0.39	0.39	0.39	1.19
Xtra-Weekend (6)	-	-	-	-	0.39	-
XtraNummer Eins/YoYoLine (7)	-	-	-	-	0.39	0.39
T-D1 Local – mobile to fixed(8)						
Daytime (2)	0.68	0.68	-	-	-	-
Nighttime (3)	0.39	0.39	-	-	-	-
T-D1 City – mobile to fixed(8)	0.29	0.29	0.29	-	-	-
T-D1 Weekend – mobile to fixed(8)	0.29	0.29	0.29	-	-	-

\* No additional connection fee after purchase of a prepaid SIM Card.

- (1) After the first minute, calls are charged by the second.
- (2) “Telly”, “TellyPlus”, “ProTel” and “ProTel DataOnly” plans include “10plus”: after the first minute, and a discount of up to 30 percent is given for national and international mobile to fixed calls and for mobile to mobile calls (T-D1, T-C-Tel).
- (3) Monday through Friday 7:00 to 17:00 for the “Telly” plan; Monday through Friday 7:00 to 20:00 for the “TellyPlus”, “ProTel”, “ProTel DataOnly”, “Xtra” and “YoYo” plans.
- (4) All other times Monday through Friday; Saturdays, Sundays and public holidays.
- (5) Calls to T-D1 and T-C-Tel only.
- (6) Friday 20:00 through Sunday 24:00.
- (7) Calls to an individually specified fixed or mobile number.
- (8) Customers may use only one of these three optional calling plans at any given time.

A substantial majority of T-D1 customers make use of the “Telly” tariff packages. The use of the prepaid “Xtra” tariffs increased in 1999, with customers using the “Xtra” prepaid cards accounting for 20 percent of T-D1 customers at year-end 1999. T-Mobil also promoted the growth of the prepaid market through a series of tariff initiatives. Deutsche Telekom expects that prepaid service offerings will continue to increase in acceptance in the coming years.

#### *T-C-Tel*

Deutsche Telekom’s analog mobile telephone service, T-C-Tel, is the only analog mobile telephone network in Germany. T-C-Tel contributed approximately EUR 139 million to the total revenue of the mobile communications business area in 1999. Deutsche Telekom intends to discontinue T-C-Tel service by December 31, 2000 and therefore no longer actively markets T-C-Tel service. T-Mobil is offering T-C-Tel customers the option of transferring to the T-D1 platform on attractive terms.

#### ***Data, Satellite, Navigation and Paging Services***

T-Mobil offers specialized mobile data transmission services under the name "Modacom". T-Mobil intends to continue to provide these services in unchanged form, while offering possibilities for Modacom customers to migrate to the new General Packet Radio Service platform beginning in the year 2000.

Since 1993, T-Mobil has provided a wide variety of INMARSAT satellite services. These services were transferred to another Deutsche Telekom subsidiary in 1999 as part of a portfolio optimization program for T-Mobil.

In early 1999, T-Mobil began marketing Tegaron Traffic, a navigation service that guides drivers around traffic jams and disruptions. T-Mobil has been working for some time, in cooperation with DaimlerChrysler-Services (debis), to develop modern traffic telematics technology. T-Mobil has transferred its interest in Tegaron to Deutsche Telekom AG at the end of 1999.

During 1999 and prior years, T-Mobil provided a variety of radio paging services under the names Cityruf, Scall and Skyper. The number of radio customers has steadily declined, however, primarily from the substitution of mobile telephony for paging services. As a result, T-Mobil sold its radio paging business with effect as of December 31, 1999.

### ***New Technologies and New Standards***

Deutsche Telekom expects that the current trend toward higher volumes of mobile data traffic as compared to mobile voice traffic will continue in the future and that mobile communications systems in the future will routinely support video transmission. Today's GSM networks offer maximum transmission rates of 9,600 bits per second. In contrast, GPRS (General Packet Radio Service), which T-Mobil intends to introduce in Germany in the summer of 2000, will provide much higher transmission rates necessary for more advanced data transmission. T-Mobil also plans to take a leading role in introduction of UMTS (Universal Mobile Telecommunications System), the next generation mobile communications standard. The Regulatory Authority has announced that it will auction licenses for the provision of UMTS services in Germany in the summer of 2000. There is no guarantee that Deutsche Telekom will obtain a license for UMTS, although Deutsche Telekom intends to pursue one vigorously.

### **Broadcasting and Broadband Cable**

Deutsche Telekom's broadband cable and broadcasting activities include operating Germany's largest cable transmission network, providing services to other cable network operators and program providers and offering broadcasting services to public and private television and radio stations. The broadcasting and broadband cable business area generated revenues of approximately EUR 1.9 billion, or approximately 5.4 percent of the consolidated revenues of Deutsche Telekom, in 1999. These revenues came predominantly from:

- one-time connection fees and monthly charges paid by cable television subscribers served by Deutsche Telekom directly or by private cable operators wholly owned by Deutsche Telekom or in which Deutsche Telekom owns an equity interest;
- fees based on the number of subscribers paid by other private cable operators, including owners of buildings, real estate management companies and local cable companies;
- fees paid by television and radio stations for feeding programming signals into Deutsche Telekom's cable network; and
- broadcasting fees paid by television and radio stations.

Approximately one-fourth of the revenues from this business area come from the provision of broadcasting services.

### ***Broadband Cable***

Deutsche Telekom currently owns a substantial majority of the cable network infrastructure in Germany. Deutsche Telekom provides cable transmission services and, since October 1998, also markets digital program packages. Unlike many cable operators in other countries, Deutsche Telekom does not produce content for its cable network.

#### *Penetration and Coverage*

In areas where Deutsche Telekom owns and operates a cable transmission network, cable subscribers are served either directly by Deutsche Telekom or by a private cable operator which provides the connection from the end of Deutsche Telekom's transmission line into the cable socket on the customer's premises. In some areas where Deutsche Telekom does not own and operate complete cable systems, local cable companies establish and operate systems from signal reception to the customer.

As of December 31, 1999, 17.8 million households, or approximately 46 percent of the total number of German households, received cable television service from Deutsche Telekom's network. At December 31, 1999, Deutsche Telekom's cable network passed 26.2 million households, or approximately 68 percent of the total number of German households. The following table sets forth the total number of households connected to and passed by Deutsche Telekom's cable network:

	<u>At December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
	<i>(in millions, except percentages)</i>		
Households connected(1) .....	17.8	17.7	17.3
Households passed .....	26.2	25.9	25.5
Total households .....	38.8	38.7	38.7
Penetration(2) .....	67.9	68.1	67.6
Coverage(3) .....	67.7	67.0	66.0

(1) Includes households connected through private cable operators.

(2) Households connected expressed as a percentage of households passed.

(3) Households passed expressed as a percentage of total households.

The following table provides information concerning customer relationships of households connected to Deutsche Telekom's broadband cable network as of December 31, 1999.

	<u>Millions of</u>	<u>Percentage of</u>
	<u>Households</u>	<u>Total</u>
Direct relationship with Deutsche Telekom.....	5.4	30.3
Subscription to local cable company in which Deutsche Telekom owns an equity interest.....	1.4	7.9
Subscription to other private cable operator, in particular real estate management company, owner of building.....	5.7	32.0
Subscription to professional cable companies with more than 2,000 subscribers.....	5.3	29.8

#### *Cable Television Service Offerings*

Deutsche Telekom's cable network transmits analog and digital programming. In 1999, Deutsche Telekom placed significant emphasis on digital programming through its MediaVision marketing platform, which offers a broad range of digital TV and radio programs from which each subscriber can assemble a tailored program package.

Deutsche Telekom is also seeking to expand the transmission capacity of the broadband cable network. In a pilot project started in 1998 with nearly 700,000 households, Deutsche Telekom has begun to expand the capacity of the network to 862 MHz and to implement back channel capability that will allow customers to receive multimedia services as well as an expanded range of digital cable programming.

### *The Separation of the Cable Business*

To begin placing its cable business on a new economic and regulatory footing, Deutsche Telekom transferred the core of its broadband cable business, along with its non-current assets, to its wholly owned subsidiary, Kabel Deutschland GmbH (Kabel Deutschland) at the turn of the year 1998/1999. Kabel Deutschland in turn plans to create nine regional subsidiaries to operate the cable business of Deutsche Telekom as of July 1, 2000. Deutsche Telekom carries Kabel Deutschland on its books at a net value of EUR 3.5 billion at December 31, 1999. This valuation is based on Kabel Deutschland's assets on that date and not upon Kabel Deutschland's long-term business plan, which assumes higher revenues and improved margins in the future. These are expected to result, in particular, from the offering of new digital services.

In February 2000, Deutsche Telekom reached an agreement to sell a 55 percent equity interest in the regional cable company for the German state of North Rhine-Westphalia to Callahan Associates LLC, a communications development and operating company based in Denver and London. In March 2000, Deutsche Telekom reached a further agreement for the sale of a 65 percent equity interest in the regional company for the German state of Hessen to London-based Klesch & Company Limited, a leading European consortium of investors. Both of these sales are scheduled to close on July 1, 2000, subject to conditions precedent including receipt of approvals from supervisory boards and from relevant authorities. Negotiations for the sale of majority interests in other regional companies are currently in progress, and Deutsche Telekom currently expects to have sold majority interests in these other companies by the end of 2001.

### **Supply and Service of Terminal Equipment**

Through its terminal equipment business area, Deutsche Telekom distributes an extensive range of telecommunications equipment, ranging from individual telephone sets and facsimile machines targeted at private customers to more complex telephone and facsimile terminals, private branch exchanges (PBXs) and complex network systems targeted at business customers. Deutsche Telekom also provides installation and repair services. In 1999, the terminal equipment business area generated revenues of EUR 1.2 billion (3.4 percent of the consolidated revenues of Deutsche Telekom in that year), as compared to EUR 1.4 billion in 1998. Revenues from the sale of mobile handsets are recorded in the mobile telecommunications business area.

The telecommunications equipment sector has been open to full competition since 1990 and is characterized by falling prices, low margins, rapid technological innovation and intense competition. Deutsche Telekom believes, however, that the supply and service of telecommunications equipment is an integral part of being a full service telecommunications provider and contributes to customer loyalty. In September 1999, readers of a well-known magazine in Germany voted Deutsche Telekom the most popular provider of terminal equipment. Financial results in the terminal equipment business area improved significantly in 1999. This was accomplished through the continuation of measures implemented in 1998 and prior years, including internal cost reductions, streamlining of the product portfolio – as Deutsche Telekom discontinued operations in unattractive market segments – and development of new products. Profits before taxes in the terminal equipment group business area in 1999 were EUR 19 million.

In 1999, Deutsche Telekom purchased approximately 87 percent of its terminal equipment, including accessories, from its ten most important national and international suppliers. The total value of all orders was EUR 567 million. Siemens AG, with a share of approximately 48 percent of all orders, is both Deutsche Telekom's most important supplier and its largest competitor in the terminal equipment market.

With most of Deutsche Telekom's terminal equipment, customers have the choice of purchasing or leasing devices. In addition to the existing standard leasing contracts with a fixed three-year or five-year term, Deutsche Telekom introduced a new, more flexible leasing option in 1998. With this option, customers benefit from shorter contract terms and are able to update their telecommunications equipment to keep up with technological progress.

The terminal equipment business area facilitated the development of Deutsche Telekom's leadership position as a provider of ISDN services in Germany. The product lines T-Concept and T-Easy, which were

introduced in 1998, were further developed in 1999 through the addition of ISDN-based features. T-Concept PC, which was also introduced in 1999, combines the advantages of a personal computer with the convenience of ISDN-based telephony.

### Value-Added Services

Through its value added services business area, Deutsche Telekom provides toll-free phone numbers, provides state-of-the-art call centers, produces telephone directories, provides directory assistance and manages Deutsche Telekom's network of public telephones. This business area is also responsible for providing customers with comprehensive solutions to their telecommunications-based dialogue marketing needs. In 1999, this business area generated revenue of EUR 1.9 billion, or 5.4 percent of the consolidated net revenue of Deutsche Telekom.

The following table provides statistical information relating to value-added services.

	<u>Year ended</u>			<u>Year ended</u>	
	<u>December 31,</u>			<u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(% change)</u>				
Minutes from public telephones (in millions)(1) .....	2,084	2,664	4,659	(21.8)	(42.8)
Minutes from toll free numbers and information provider					
Services (in millions)(1) .....	4,031	1,466	1,267	175	15.7
Minutes from directory inquiries services (in millions)(1) .....	<u>269</u>	<u>317</u>	<u>511</u>	(15.0)	(38.0)
Total minutes (in millions)(1) .....	<u>6,384</u>	<u>4,447</u>	<u>6,437</u>	<u>43.6</u>	<u>(30.1)</u>

(1) Estimated.

Deutsche Telekom offers toll-free, shared-cost, and premium rate numbers to its customers. During 1999, the number of calls made to service phone numbers provided by Deutsche Telekom increased by 47.5 percent. Deutsche Telekom believes that this increase was due to price reductions that it introduced during 1999 and to intensified marketing.

Deutsche Telekom is Germany's largest call center operator, with about 9,000 operators at around 100 locations. Call center solutions provide tele-sales and direct marketing services tailored to the needs of particular customers, including billing and collection services. Deutsche Telekom is establishing state-of-the-art call centers at which it can provide comprehensive inbound/outbound, front office/back office and letter-shop services. Deutsche Telekom's call center team is able to handle and evaluate up to 100,000 calls per hour. This is made possible by Deutsche Telekom's experience with call centers, its state-of-the-art ACD (Automatic Call Distribution) technology and its highly sophisticated network.

Deutsche Telekom markets data-based products and solutions to complex communications problems. In addition, Deutsche Telekom provides information services, principally directory information and operator assistance, and provides printed, electronic and online telephone directories through its subsidiary DeTeMedien. Deutsche Telekom's directory assistance service handles up to 1.0 million calls daily, more than any other directory assistance services provider in Germany. Directory assistance has become highly competitive in Germany. In the wake of increasing competition and price adjustments for the service, the number of calls to the service decreased again in 1999, from 406 million in 1998 to around 325 million in 1999. Deutsche Telekom intends to place substantial emphasis on customer service activities for T-Online and T-Mobil and therefore intends to reallocate an increasing number of experienced operators from its directory assistance service to call centers devoted to these subsidiaries.

The publication of telephone directories is another function of the value-added services business area. Since 1998, Deutsche Telekom's subsidiary DeTeMedien has published a directory on CD-ROM, "Telephone book for Germany – Map & Route", with the telephone numbers of more than 33 million telephone subscribers, a digital map of Germany and special routing functions. In the fall of 1999, Deutsche Telekom Medien GmbH

(DeTeMedien) released additional CD-ROM based products for the convenience of Deutsche Telekom's customers.

The value-added services business area is also responsible for marketing telephone cards, which consist of chip based prepaid cards for use in Deutsche Telekom's 100,000 card based pay phones as well as chipless calling cards useable all over the world. To increase the competitiveness of its card services and to improve protections against misuse of telephone cards, Deutsche Telekom formed the subsidiary DeTeCardServices GmbH in 1999.

As of December 31, 1999, Deutsche Telekom operated approximately 133,000 payphones, representing a penetration rate of 1.6 payphones for every 1,000 inhabitants. Approximately 70 percent of these payphones are card operated, and the remainder are coin operated. In 1999, Deutsche Telekom continued its efforts to improve performance in the unprofitable area of payphones and other public communications. Important new initiatives in this regard included pilot programs for the introduction of payphones that can accept both telephone cards and coins and preparations for the introduction of "multifunction" terminals, which are to be introduced in 2000. Another important element in Deutsche Telekom's consolidation strategy has been to optimize placement of public telephones, in order to ensure that the public telephone system both remains cost-effective and provides nationwide coverage. Deutsche Telekom continued its site-optimization program in 1999 and plans to continue it in 2000 as well.

### **Other Services**

Deutsche Telekom's "other services" area primarily consists of multimedia activities and, to a lesser extent, ancillary activities performed by Deutsche Telekom. This business area had revenues of EUR 1.1 billion in 1999, representing 3.2 percent of the consolidated revenue of Deutsche Telekom in 1999. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Net Revenues—Other Services."

Deutsche Telekom offers nationwide Internet access for residential customers and for small and medium size business customers through its wholly-owned subsidiary T-Online, and also offers multimedia applications and services for business customers under the T-Mart brand name.

### ***T-Online***

At December 31, 1999, T-Online had approximately 4.2 million customers. The T-Online service, which is operated, developed and marketed by T-Online International AG, is Europe's largest online-service and Internet-service provider based on number of subscribers. Through T-Online, Deutsche Telekom offers cost-effective, high-performance Internet access primarily to consumers. T-Online is scheduled to become listed on the Neuer Markt segment of the Frankfurt Stock Exchange in April 2000, with Deutsche Telekom retaining a controlling ownership interest.

In addition to Internet access, T-Online offers customers access to a number of value-added online services. The available applications cover a spectrum that includes database research, information and entertainment, and online banking. Based on internal research, Deutsche Telekom believes that the majority of online bank accounts in Germany is managed through T-Online.

T-Online significantly expanded portal site activities in 1999, making T-Online the gateway to a wide range of information and entertainment services. In May 1999, T-Online launched the Shopping Portal, through which customers have access to electronic commerce. Currently about 200 vendors present products and services from various industries on the Shopping Portal. The Fun & Action portal, which was launched on T-Online's homepage in September 1999, is geared primarily toward younger T-Online customers. This portal offers chat rooms, forums, online games and information tailored for specific target groups. Deutsche Telekom believes that these offers make the T-Online home page more attractive to customers and therefore more attractive to advertisers.

Use of T-Online has continued to grow rapidly. In 1999, subscribers connected to the service a total of some 1.5 billion times, or approximately 44 percent more often than in the previous year. In January 1999, the number of subscriber connections in a month exceeded 100 million sessions for the first time. In October 1999, Deutsche Telekom reduced the T-Online eco online charge from three to two pfennigs per minute – charging three pfennigs per minute for network access via Deutsche Telekom – and cancelled the six-pfennigs dial-in charge billed previously. Since November 1, 1999, Deutsche Telekom offers T-Online pro, a cost effective package for frequent users. It includes unlimited standard Internet access with transmission speeds of up to 64 Kbit/s within Germany at a monthly subscription fee of currently DM 19.90 and a telephone connection charge of currently 3 pfennigs per minute if accessed via Deutsche Telekom's network. In 1999, Deutsche Telekom began marketing T-Online speed 50 and T-Online speed 100. Both products use Deutsche Telekom's T-DSL to provide broadband access to the Internet. T-Online speed 50 provides 50 hours of high-speed access to the Internet for a monthly price of DM 99, while T-Online 100 includes 100 hours for a monthly price of DM 149, online charges of three pfennigs per minute for usage in excess of the 50 hours or 100 hours is included in the basic rate. There is no telephone charge.

Deutsche Telekom intends to introduce new online products during 2000. One planned new product consists of unlimited Internet access, including the telephone connection to the Internet, for a flat rate of less than DM 100 per month without additional online or telephone charges. Subject to regulatory approval, Deutsche Telekom also intends to introduce "T-ISDN XXL," a new product that would give ISDN customers unlimited telephone connection to the Internet on Sundays, without usage-based telephone charges, for a monthly fee of DM 5. ISDN@ctive, another planned new product, would give ISDN customers unlimited narrow-band access to the Internet for an additional monthly charge of less than DM 10.

Deutsche Telekom also intends to promote Internet usage in Germany through special promotional offers. Through a special offer that would provide free Internet access for two years to the first 100,000 T-DSL customers that sign up, Deutsche Telekom intends to begin creating a mass market for broadband Internet access. Deutsche Telekom also intends to provide free Internet access and related software and customer service to schools in Germany.

To further its market leadership position in Germany, T-Online entered into an online banking cooperation with comdirect, the online banking subsidiary of Commerzbank AG, in February 2000. As part of this cooperation, T-Online agreed to take a 25 percent equity interest in comdirect, and Commerzbank will take an equity stake in T-Online of approximately 2.1 percent (after giving effect to the listing of T-Online shares that is planned for April 2000 and to the acquisition of Club Internet).

In addition, T-Online took a significant step in the development of its international business in February 2000, when it agreed to acquire a 99.9 percent equity interest in Club Internet, the online service business of the French Lagardère group, in exchange for shares of T-Online representing an equity interest of approximately 5.8 percent in T-Online (after giving effect to the listing of T-Online shares that is planned for April 2000 and to the acquisition of an interest in comdirect).

### ***T-Mart***

Under the T-Mart brand name, Deutsche Telekom offers a comprehensive range of multimedia applications and services for business customers, including complete service, consultation, implementation, training and operation. Introduction of the general T-Mart brand in spring 1998 marked a realignment of Deutsche Telekom's activities in this field. Applications for electronic business and electronic commerce in the Internet as well as solutions for presenting a company profile and for handling business processed via the Internet and/or extranet are examples of T-Mart business services.

Based on an agreement signed with Commerce One in January 2000, Deutsche Telekom's goal is to set up an open business-to-business marketplace, i.e., a virtual marketplace for companies with a commercial portal which will simplify and accelerate the companies' transactions when trading goods and services electronically.

## *Network Security*

Recognizing that the commercial success of an Internet services provider depends on network security, Deutsche Telekom offers convenient solutions that provide maximum security for payment transactions and sensitive data transmissions in the Internet. In 1999, Deutsche Telekom bundled these solutions under the umbrella of its 100 percent subsidiary TeleCash Kommunikations-Services GmbH (TeleCash). Secure Pay Services, one of the products offered through TeleCash, supports the use of credit cards complying with the SET (Secure Electronic Transaction) standard, an internationally recognized method of handling credit card transactions in the Internet. In addition, Deutsche Telekom was the first German company to issue chip cards for digital signatures which affixes a legally binding signature to electronic data on the computer. With the product ServerPass, a content provider in the Web can be uniquely identified, thus providing online customers assurance that they are connected with the desired vendor.

In order to strengthen Deutsche Telekom's position in network security, Deutsche Telekom purchased a 34 percent stake in secunet Security Networks GmbH (secunet), a subsidiary of the TÜV Mitte-Gruppe, in September 1999. Services offered by secunet range from security analysis and consulting on the implementation of products to maintenance and customer care. Deutsche Telekom believes that the investment creates opportunities in the international business area.. Deutsche Telekom's stake in secunet was reduced to 25 percent as a result of a public offering of shares by secunet in November 1999.

### **International**

Deutsche Telekom is focusing the further internationalization of its business in four strategic areas:

- access services,
- mobile communications,
- data/IP/systems, and
- consumer Internet services.

From 1993 through December 31, 1999, Deutsche Telekom invested a total of EUR 18.9 billion in acquiring equity positions in international investments and joint ventures. Deutsche Telekom continuously evaluates further international investment opportunities in light of strategic objectives, the potential for return on investment and the prospect for playing a controlling role in management. Deutsche Telekom's emphasis is on expansion in Europe, where it is already present in many markets, and on building its presence in the United States. The company may, however, pursue opportunities worldwide. Deutsche Telekom has engaged, and may continue to engage from time to time, in discussions with other parties that may lead to one or more substantial cross-border acquisitions or business combinations.

### ***International Acquisitions in 1999***

Deutsche Telekom took important steps in 1999 to implement its internationalization strategy, including the entry into agreements for acquisitions that expand its European mobile telecommunications presence:

- *One 2 One.* In the fall of 1999, Deutsche Telekom entered into an agreement to purchase One 2 One, the fourth largest provider of mobile communications services in the United Kingdom, for a purchase price of GBP 6.9 billion (including the assumption of outstanding shareholder loans and non-recourse debt). As a result, One 2 One has been fully consolidated in Deutsche Telekom's consolidated financial statements since October 1, 1999, the date on which the purchase of One 2 One was completed. At year-end 1999, One 2 One had approximately 4.2 million customers, representing a share of approximately 17 percent of the mobile telecommunications market in the United Kingdom. This total represented a year-on-year increase of 2.3 million customers. In connection with the acquisition, Cable & Wireless indemnified Deutsche Telekom for certain liabilities.

One 2 One commenced operations in 1993 with the world's first digital mobile network based on the GSM 1800 MHz standard and currently uses this network to offer its mobile services. In 2000, One 2 One plans to begin offering high speed mobile data services based on GPRS and WAP-based Internet services. One 2 One's network currently covers approximately 98 percent of the British population (excluding Northern



Ireland) and the company has entered into roaming agreements with providers in approximately 79 countries. One 2 One offers a broad range of prepaid and contract mobile services. In November 1999, One 2 One launched a joint venture company with the Virgin group called "Virgin Mobile" to further increase its market share. Virgin Mobile has around 200 retail outlets in which One 2 One can market products and services.

- *max.mobil.* In 1999, Deutsche Telekom, acting through T-Mobil, increased its shareholding in max.mobil., the second largest Austrian mobile telecommunications company, from 25 percent to 91 percent. As a result, max.mobil. has been fully consolidated in Deutsche Telekom's consolidated financial statements since January 1, 1999. Through December 31, 1999, Deutsche Telekom has invested a total of 13.8 billion Austrian schillings in the equity shares of max.mobil. In Austria, max.mobil. provides nationwide mobile telephony service through its digital GSM network, which covered approximately 97 percent of the Austrian population at year end 1999. In addition, max.mobil. has entered the fixed-line telephony business and has also entered the online service business through a joint venture with T-Online. At year-end 1999, max.mobil. had approximately 1.5 million GSM customers, representing a share of approximately 38 percent in the Austrian GSM telecommunications market. In 1999, max.mobil. generated revenues of 11.2 billion Austrian schillings (EUR 811 million), as compared to 4.5 billion Austrian schillings (EUR 329 million) in 1998.
- *Mobile Investments in Eastern Europe.* In October 1999, Deutsche Telekom entered into an agreement with Media One International to purchase Media One's ownership interests in a group of Central European mobile telecommunications companies at a purchase price of US\$ 2 billion. As part of this transaction, Deutsche Telekom in March 2000 acquired:
  - Media One's 22.5 percent ownership interest in Polska Telefonia Cyfrowa ("PTC"), the leading GSM mobile communications provider in Poland, bringing Deutsche Telekom's total ownership interest in PTC to 45 percent.
  - A 49 percent equity stake in Westel 900, the leading digital cellular phone network operator in Hungary, and a 49 percent equity stake in Westel Radiotelefon, the Hungarian analog cellular phone network operator. The other shareholder in Westel Radiotelefon and Westel 900 is MATÁV, in which Deutsche Telekom jointly with Ameritech Corporation owns a 59.5 percent interest. MATÁV has an option to acquire Deutsche Telekom's interests in the two Westel companies. MATÁV can exercise this option by purchasing the shares owned by Deutsche Telekom in up to three tranches at any time between July 1, 2000 and September 30, 2001. MATÁV has publicly indicated that it intends to exercise this option. Prior to the exercise of the call option, MATÁV has the right to vote Deutsche Telekom's Westel shares pursuant to a proxy granted by Deutsche Telekom.

Deutsche Telekom has reorganized a substantial part of its mobile telephony business under the ownership of a new holding company, T-Mobile International AG.

In addition, to its acquisitions in the mobile sector, Deutsche Telekom made the following acquisitions in 1999 to strengthen its European position in the areas of access services and data/IP/systems:

- *Hrvatske Telekomunikacije.* In October 1999, Deutsche Telekom acquired a 35 percent equity interest in the state-owned Hrvatske Telekomunikacije, the leading full-service telecommunications service provider in Croatia, for a purchase price of US\$ 850 million. Hrvatske Telekomunikacije operates modern, largely digitized fixed-line and mobile networks and is the leading provider of online and data communications services in Croatia. In 1999, Hrvatske Telekomunikacije had revenues of HRK 5.3 billion or EUR 694 million.
- *SIRIS.* In November 1999, Deutsche Telekom acquired 100 percent ownership of SIRIS S.A.S., a leading provider of fixed-line voice telephony and data communication services in France, for a purchase price of EUR 732 million. Measured in terms of revenues, SIRIS was the second largest provider of fixed-line services in France in 1999. Deutsche Telekom believes that SIRIS, as operator of an optical fiber network linking all major business centers in France, has significant strengths in the voice telephony and data communications markets, particularly among business customers. SIRIS had revenues of approximately EUR 112 million in 1999.

Further steps in the internationalization strategy were taken in February 2000, with the announcement by T-Online International AG of plans to acquire Club Internet, one of the leading Internet service providers and web portals in France, and in March 2000 with Deutsche Telekom's agreement with DaimlerChrysler Systems to enter into a strategic engagement that will result in Deutsche Telekom's acquisition of a 51 percent interest in debis Systemhaus, a leading European systems solutions company that has a global data network.

### ***Prior International Acquisitions and Joint Ventures***

The international acquisitions completed or agreed to in 1999 complemented Deutsche Telekom's pre-existing portfolio of investments in telecommunications companies outside Germany.

*MATÁV.* Deutsche Telekom and Ameritech jointly hold a 59.5 percent equity interest in MATÁV. This interest is held through MagyarCom Holding GmbH ("MagyarCom"), a holding company in which Deutsche Telekom and Ameritech each directly or indirectly holds 50 percent. In 1999, MATÁV had consolidated revenues of HUF 385 billion (EUR 1.5 billion), which represented an increase in euro revenues of 14.2 percent over 1998.

In 1999, MATÁV continued to expand and modernize Hungary's telecommunications infrastructure. By the end of 1999, 79.0 percent of MATÁV's network had been digitized, up from 75.7 percent at the end of 1998. In the area of mobile communications, Westel 900, a fully consolidated subsidiary of MATÁV that is owned in part by Deutsche Telekom, held an approximate 55 percent share of the GSM market in Hungary, with approximately 842,000 customers at year-end 1999, up from approximately 547,000 at year-end 1998.

Deutsche Telekom and Ameritech initially acquired their interests in MATÁV from the Hungarian state. MATÁV currently has 1,037,281,600 common shares and a single Series B share outstanding, which is held by the Hungarian Republic through the Hungarian Ministry for Transport, Telecommunications and Water Management.

Ameritech has an option to put to Deutsche Telekom up to 100 percent of the MagyarCom shares owned by Ameritech. Exercise of this option in full would increase Deutsche Telekom's effective interest in MATÁV from 29.8 percent to 59.5 percent. The exercise price of the put option is the fair market value of the corresponding MATÁV shares plus a US\$ 60 million control premium. Had the option been exercised in full on December 31, 1999, the exercise price would have been approximately EUR 2.3 billion. See note 32 to the consolidated financial statements. Deutsche Telekom and Ameritech manage and operate MagyarCom jointly. In the event of disagreement, Deutsche Telekom has a deciding vote, except with respect to certain fundamental matters. Although MagyarCom has the power to appoint a majority of MATÁV's board of directors, the Republic of Hungary retains significant influence over MATÁV's activities as the holder of the Series B share, the regulator of the Hungarian telecommunications sector and MATÁV's largest customer. The Series B share gives the Hungarian state certain special rights in the election of MATÁV's boards and with respect to certain decisions taken at shareholders' meetings. The MagyarCom shares held by Deutsche Telekom and Ameritech and the MATÁV shares held by MagyarCom are subject to substantial transfer restrictions.

MATÁV's monopoly in the Hungarian market for long-distance and international telecommunications services will expire at the end of 2001. MATÁV has expressed a willingness to consider an earlier cessation of its monopoly rights.

*Mobile Operations in Eastern Europe and Russia.* Deutsche Telekom is well positioned in the markets of Eastern Europe and Russia as a result of investments in mobile telecommunications companies there. For example, in Poland, Deutsche Telekom's affiliate, Polska Telefonia Cyfrowa, achieved a share of over 44.7 percent of the mobile communications market at year-end 1999, with approximately 1.75 million customers. PTC's revenue grew by 48 percent to EUR 614 billion in 1999. Deutsche Telekom has held a 22.5 percent stake in PTC since December 1995 and acquired an additional 22.5 percent stake in March 2000. An arbitral proceeding is currently pending which, if resolved adversely to Deutsche Telekom, could have a material

adverse effect on Deutsche Telekom's interest in PTC. For further information on this proceeding, see "Legal Proceedings".

Deutsche Telekom has an approximate 84.6 percent interest in a company called Cmobil, which in turn owns an approximate 41 percent stake in the Czech mobile communications network operator RADIOMOBIL. CMobil is in the process of exercising an option which allows it to increase its stake to over 60 percent. This affiliate had revenues of over EUR 297 million in 1999 and increased its customer base to 373,000 by the end of that year.

Deutsche Telekom also holds an approximate 44 percent direct equity interest in CSJC Mobile TeleSystems gAG ("MTS"), a Russian mobile telephone company. Under a series of agreements with Sistema, the holder of most of the remainder of the shares in MTS, Deutsche Telekom and Sistema have together contributed an approximate 10 percent interest in MTS to a joint venture and agreed to coordinate their votes on important matters with respect to this interest. MTS had approximately 386,000 customers and generated EUR 338 million at year-end 1999.

In addition, Deutsche Telekom holds smaller investments in several other Eastern European other mobile telecommunications companies.

*WIND.* In November 1997, Deutsche Telekom, France Telecom and Enel formed the consortium "WIND" in Italy. WIND obtained a fixed-line telephony license in February 1998 and the third Italian mobile license (dual-band GSM 900/1800) in June 1998. Fixed-line and mobile operations commenced on March 1, 1999. Each of Deutsche Telekom and France Telecom owns 24.5 percent of WIND, with Enel owning the remaining 51 percent. Deutsche Telekom's investment in WIND through December 31, 1999 was approximately EUR 222 million. Deutsche Telekom, France Telecom and Enel have been engaged in litigation concerning their shareholding relationships in WIND since mid-1999. For a description of the litigation, see "Legal Proceedings".

*MetroHoldings.* Deutsche Telekom, France Telecom and Energis plc, a British operator specializing in corporate telecommunications, plan to establish metropolitan area networks in Great Britain through MetroHoldings Ltd. ("MetroHoldings"), a company in which Deutsche Telekom and France Telecom, indirectly through DTFT Ltd., each owns a 25 percent interest and Energis owns a 50 percent interest. DTFT Ltd. is owned on a 50/50 basis by Deutsche Telekom and France Telecom. As of December 31, 1999, Deutsche Telekom had invested approximately EUR 1.5 million in MetroHoldings through DTFT Ltd. MetroHoldings has built new local metropolitan area telecommunication networks in London, Birmingham and Manchester, and is currently working on completing additional networks in Leeds and Bristol, thereby creating direct links with business customers.

*Multilink.* In April 1998, Deutsche Telekom and France Telecom entered into a 50/50 joint venture agreement to offer fixed-line telephony services within Switzerland through Multilink SA ("Multilink"). Deutsche Telekom has invested approximately EUR 10.4 million in the capital of Multilink. On October 22, 1998, Multilink launched its fixed-line telephony services. The company is controlled equally between Deutsche Telekom and France Telecom. Transfers of shares by either shareholder are subject to a right of first refusal on the part of the other shareholder.

*Asian Investments.* Deutsche Telekom owns a 25 percent stake in Satelindo, an Indonesian mobile and international telecommunications operator, which was initially acquired by T-Mobil in 1995 for total consideration of US\$ 676 million. In Malaysia, Deutsche Telekom owns an approximate 21 percent interest in the Malaysian telecommunications provider Technology Resources Industries Bhd. ("TRI"). The total purchase price was approximately 1.5 billion ringgit (EUR 460 million at the date of purchase). In the Philippines, Deutsche Telekom owns a 10 percent interest in Isla Communications Co., Inc. ("Islacom"), a Philippine telecommunications company, and a 40 percent interest in Asiacom Philippines, Inc., the majority shareholder of Islacom, which were acquired for an aggregate purchase price of approximately US\$ 243 million. As a

consequence of the Asian economic crisis, Deutsche Telekom has written down the total book value of these investments to EUR 96.5 million.

### ***Disengagement from France Telecom and Sprint***

Through mid-1999, Deutsche Telekom's principal international engagement was an alliance with France Telecom that involved participation, through a 50/50 joint venture, in the Global One joint venture with Sprint, co-investment in several other European joint ventures, and a cooperation program in various areas of research and development. Because of disputes between Deutsche Telekom and France Telecom that in mid-1999 grew out of Deutsche Telekom's formerly proposed business combination with Telecom Italia, and because of MCI Worldcom's planned acquisition of Sprint announced in October 1999, Deutsche Telekom, France Telecom and Sprint have been in the process of disengaging from their alliance relationships. The most significant measures taken in this regard have been:

- The conclusion of a series of agreements in January 2000 among Deutsche Telekom, France Telecom, Sprint and other related parties pursuant to which:
  - Sprint sold to the joint venture between Deutsche Telekom and France Telecom its interest in the Global One alliance for US\$ 1.1 billion and Sprint was repaid by Global One approximately US\$ 276 million in loans owed to Sprint;
  - Sprint agreed to a number of amendments to the agreements governing the investments of Deutsche Telekom and France Telecom in Sprint; and
  - Deutsche Telekom and France Telecom agreed to vote their Sprint shares in favor of MCI WorldCom's planned acquisition of Sprint, subject to certain conditions; and
- The conclusion of a series of agreements in January 2000 among Deutsche Telekom, France Telecom and other related parties pursuant to which Deutsche Telekom agreed to sell to France Telecom its interest in their 50/50 joint venture relating to Global One for US\$ 2.8 billion and for the repayment of approximately US\$ 188.5 million in loans.

In connection with these transactions, Deutsche Telekom publicly disclosed that it does not intend to remain as a long-term shareholder of Sprint or, if the MCI WorldCom acquisition of Sprint is consummated, of MCI WorldCom. Deutsche Telekom expects to dispose of its shares in Sprint (or the shares of MCI WorldCom it would receive in an MCI WorldCom acquisition of Sprint) in an orderly manner in view of market conditions and subject to applicable legal and contractual restrictions. Deutsche Telekom cannot guarantee whether or, in the case of Sprint, at what price or prices, a sale of its interests in Sprint or MCI WorldCom will be consummated.

Deutsche Telekom had been using Global One to offer its customers in the international market – such as companies and operators of other telecommunications networks and services – a range of telecommunications services. In connection with the agreements relating to separate sales by Deutsche Telekom and Sprint of their interests in Global One, Deutsche Telekom has been released from certain non-compete and exclusivity provisions of the Global One alliance, but Deutsche Telekom is prohibited from offering services in competition with certain identified customer contracts of Sprint and France Telecom until one year after the closing of the relevant sale. Transition arrangements agreed upon in connection with the transactions are designed to assure continuity of service for two years to Deutsche Telekom's Global One customers and to prohibit Sprint and France Telecom from offering services in competition with certain identified customer contracts of Deutsche Telekom until one year after the closing of the relevant sale. To offer its customers international communications solutions independent of Global One, Deutsche Telekom plans to expand its international network through internal growth, cooperative arrangements and acquisitions. Disengagement from the Global One alliance gives Deutsche Telekom the freedom to pursue opportunities that were formerly closed to it under its contractual arrangements.

The alliance with France Telecom was supported by a cross-shareholding established in late 1998, in which Deutsche Telekom and France Telecom each purchased 2 percent of the other's issued share capital. Both companies agreed that they would not sell these shares until after December 31, 2001, except under limited

circumstances or as otherwise agreed. France Telecom entered into a separate agreement with Kreditanstalt für Wiederaufbau (KfW) pursuant to which France Telecom agreed that it would not dispose of the Deutsche Telekom shares it purchased from KfW until after December 31, 1999, and that it would be able to sell those shares between January 1, 2000 and June 30, 2001 only under certain circumstances (depending in part on whether KfW has notified France Telecom at the time of any proposed sale by France Telecom that KfW intends to sell Deutsche Telekom shares).

Developments in the disengagement of the alliance may affect other joint undertakings of France Telecom and Deutsche Telekom, such as WIND, MetroHoldings and Multilink.

For a description of litigation relating to the disputes among Deutsche Telekom, France Telecom, Enel and WIND, please refer to “Legal Proceedings”.

### **Network Infrastructure**

Deutsche Telekom has invested over EUR 78.7 billion in its telecommunications and cable networks since 1990, including EUR 2 billion in 1999. The total investments made include the installation of a new network in eastern Germany after German reunification in 1990. As a result, Deutsche Telekom’s fixed-line network has evolved into one of the most technologically advanced major networks in the world, with fully digital trunk switching and international trunk switching, 100 percent digital local switching and 100 percent digital transmission. Deutsche Telekom has introduced asynchronous transfer mode (ATM) technology and wavelength division multiplexing (WDM) technology on the basis of its advanced network. Compared to 1998, Deutsche Telekom’s investments in network infrastructure remained almost at the same level in 1999, as a decrease in investments in the access network and further optimization of network infrastructure procurement resulting mainly from market price movements was compensated by increasing investments in Deutsche Telekom’s Internet platform, the roll-out of T-DSL and the extension of the transmission network. In addition, with digitalization, reorganization and increased productivity, the number of employees of Deutsche Telekom engaged in network infrastructure development, maintenance and operation had decreased to less than 50,000 at year end 1999 from over 65,500 at year end 1996.

In the case of Deutsche Telekom’s mobile network, unlike its fixed-line network, significant new investments in infrastructure will be needed to improve quality of service while keeping up with demand in a fast growing market. Deutsche Telekom has budgeted total investments of approximately EUR 0.8 billion for improvements to its mobile communications network. In recent years, Deutsche Telekom has increased the number of employees active in mobile network planning, operations and maintenance.

#### ***Fixed-Line Telecommunications Network***

*Domestic Fixed-Line Telecommunications Network.* Deutsche Telekom’s domestic public switched telephone network and ISDN network consist of approximately 5,200 local networks connected by a long-distance transmission network.

*Local Networks.* At December 31, 1999, Deutsche Telekom’s domestic network consisted of 34.5 million standard telephone lines in service and 13.3 million ISDN voice and data channels and reached virtually all German homes and German businesses.

Deutsche Telekom’s domestic network has demonstrated a high degree of reliability, as shown by the following table:

	<u>Year ended December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
Blocking rate on the public switched telephone network/ISDN(1) .....	1.4%	1.1%	0.9%

(1) Blocked calls as a percentage of all calls made on the public switched telephone/ISDN network during the periods indicated.

Deutsche Telekom believes that the increase in blocked calls since 1997 has resulted primarily from atypical traffic generated by competitors that do not have their own networks and have relatively few points of interconnection. See "Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection". The network's reliability is enhanced by efficient customer service. See "—Sales and Service".

#### *Transmission Network*

As of December 31, 1999, the transmission network linking Deutsche Telekom's local networks consisted of approximately 162,500 kilometers of fiber optic cable.

As of December 31, 1999, more than 70 percent of Deutsche Telekom's national transmission network consisted of Synchronous Digital Hierarchy (SDH) transmission links. SDH, which is a transmission standard for networks that use fiber optics, allows for a simpler and more easily managed network with enhanced reliability. Deutsche Telekom is developing its SDH networks further by installing additional high capacity SDH equipment in combination with WDM systems within its national transmission network.

In 1998, Deutsche Telekom put its High Performance Net, a nationwide, flexible, ultra-high-quality transport network, into operation. The network links Germany's economic centers, such as Berlin, Frankfurt, Munich, Düsseldorf and Hamburg, within optical fiber rings totaling over 20,000 kilometers in length and providing transmission rates of 2.5 Gbit/s.

#### *International Network*

Deutsche Telekom's international transmission infrastructure consists of both cable and satellite transmission systems, which links Deutsche Telekom's national network directly to approximately 300 other telecommunications service providers worldwide.

Deutsche Telekom is an investor in around 75 fiber-optic submarine cables worldwide. In addition to investments in a number of smaller cables, Deutsche Telekom has substantial investments in the major submarine cables AC-1, TAT-10, TAT-12/13 and UK-G6 and is the largest investor in the SEA-ME-WE3 cable, one of the longest submarine cables systems in the world, which went into operation in August 1999. Deutsche Telekom expects to invest approximately US\$ 120 million in the planned TAT-14 submarine cable, including amounts already invested. Deutsche Telekom expects that the TAT-14 cable will be operational by the end of 2000 with a total transmission capacity of 1280 Gbit/sec.

In October 1998, Deutsche Telekom launched operations of the Trans-Asia-Europe optical fiber cable system (TAE), the first direct optical fiber link between Frankfurt/Main and Shanghai. With 13 countries connected and a total length of 22,000 kilometers, TAE is one of the world's longest terrestrial cable systems.

Deutsche Telekom plans to serve its international customers by seamlessly linking its transport network for international traffic in Germany and its 38 national City-networks with a worldwide platform owned by Deutsche Telekom. The European cities of Paris, London, Amsterdam and Brussels were already connected to Deutsche Telekom's high-performance network in 1999, and Geneva, Milan and Zurich are to follow. Deutsche Telekom plans to link with this network some 40 points of presence, in 16 countries, by late 2000, and to expand to further cities in 2001. ATM, IP and voice technology will be made available at all of these locations. Deutsche Telekom plans eventually to link in a single network over 93 points of presence in around 40 countries.

#### *Data Networks*

##### *Leased Line and Data Transmission Networks*

Deutsche Telekom operates leased line networks on a managed and unmanaged basis. Deutsche Telekom also operates a number of switched digital networks used principally for the provision of packet switched, frame relay and ATM data transmission services. In addition, Deutsche Telekom operates an Internet platform.

Deutsche Telekom operates a number of platforms in connection with the provision of leased line services. Deutsche Telekom's data networks support a variety of transmission technologies. Deutsche Telekom's Datex-P data transmission service, which is based on the X.25 protocol, provides transmission rates of up to 1.5 Mbits/sec, while the FrameLink Plus service, which is based on frame relay technology, provides transmission rates of up to 2 Mbits/sec (high capacity). Deutsche Telekom's T-ATM network, which is based on Asynchronous Transfer Mode technology, permits transmission of data at rates of up to 155 Mbits/sec. See—"Data Communications and Information and Communications Systems"

#### *Internet Network*

The extremely rapid growth of Internet communications has created enormous challenges for the international telecommunications industry. In 1999, Deutsche Telekom continued to expand its telecommunications networks for transport of national and international Internet traffic. From the end of 1998 to the end of 1999, Deutsche Telekom increased the number of dial-in ports in its national platform by a total of 100 percent. The transmission rate in the core network was increased in 1999 from 155 Mbit/s to 622 Mbit/s, which is equivalent to about 40,000 "DIN-A4" (i.e., letter size) pages of text per second. As a result, Deutsche Telekom's IP backbone is already one of the world's most powerful Internet platforms.

Deutsche Telekom also made preparations in 1999 for a further increase of transmission capacity in core areas to as much as 2.5 Gbit/s. As in the case of the expansion of core network capacity in 1999, this expansion will involve use of state-of-the-art wave division multiplexing technology. Wave division multiplexing systems permit the multiplication of the potential transmission capacity in optical fiber. In early 2000, Deutsche Telekom began to build up a completely new optical transport network across Germany which can be adjusted to the forecasted high capacity needs as required.

In 1999, Deutsche Telekom expanded its transmission capacity up to 1.05 Gbit/s to the United States, which plays a particularly important role in Internet communications. Deutsche Telekom accomplished this result using its own capacities in submarine cable systems. In 2000, Deutsche Telekom plans to add more than 3.5 Gbit/s of transmission capacity to the United States.

#### *ADSL*

In 1999, Deutsche Telekom continued the ambitious ADSL technology (Asymmetrical Digital Subscriber Line) expansion program initiated in 1998. ADSL permits transmission of data through the copper wire pairs that link customers to Deutsche Telekom's networks at faster rates than were previously possible: up to 6 Mbit/s from the network to the customer and up to 768 kbit/s from the customer to the network. ADSL thus makes fast Internet access possible.

Deutsche Telekom made ADSL technology under the brand name "T-DSL" available to its customers for the first time in 1999 and plans to expand the number of local networks where T-DSL is available to more than 200 during 2000. Deutsche Telekom only markets T-DSL together with T-ISDN. Deutsche Telekom currently plans to have introduced T-DSL throughout most of Germany by the end of 2003.

#### *Mobile Telecommunications Network*

Deutsche Telekom operates two national mobile telephony networks. At December 31, 1999, Deutsche Telekom's digital mobile network, T-D1, consisted of around 25,000 base stations, 581 base station controllers and 46 switches and was capable of reaching an area comprising 96 percent of Germany and 99 percent of the population of Germany. The T-D1 network operates in the frequency band ranging from 890 to 915 MHz and from 935 to 960 MHz. Deutsche Telekom's analog mobile network, T-C-Tel, consisted of 2,120 base stations

and 32 switches. Deutsche Telekom has decided to take its analog mobile network out of service at the end of 2000.

Due to the increasing popularity of digital mobile communications in Germany, Deutsche Telekom expects to spend approximately EUR 0.8 billion on the expansion and improvement of its German digital mobile network during 2000.

Deutsche Telekom has conducted significant research and development efforts relating to UMTS (Universal Mobile Telecommunications System) technology and expects to be in a position technologically to offer mobile telephony based on UMTS if and when these services become generally available on a commercial basis.

### ***Cable Network***

Deutsche Telekom's cable network is a dedicated coaxial cable based broadband network currently used solely for the transmission of television and radio signals. Deutsche Telekom estimates that an investment of approximately EUR 2 billion would be required to upgrade the network from 450 MHz to 862 MHz and to make the cable network bi-directional from the head end, where program signals are fed into the cable network, to the customer connection point for 70 percent of its customers, i.e., capable of being used to transmit more TV channels, transmit telephone calls and provide multimedia services and fast Internet traffic to those customers. Deutsche Telekom also believes that an additional amount of approximately EUR 1.5 billion would be required to upgrade the network from the customer connection point to the cable socket on the customers' premises. The cable network is made up of 1,100 local networks. Signals are fed into the network from satellite, terrestrial radio stations and, to a very limited extent, trunk lines to content providers.

### ***Broadcast Network***

Deutsche Telekom operates a terrestrial broadcasting network with over 7,000 radio and television transmitters in over 3,000 locations. Deutsche Telekom does not provide content for its broadcast networks.

### **Information Technology**

Deutsche Telekom's subsidiaries DeTeCSM and T-Nova work closely together to promote the continuous development of Deutsche Telekom's information technology (IT) systems and applications. Deutsche Telekom increasingly provides comprehensive telematics solutions to its customers on the basis of its IT competencies.

DeTeCSM, a wholly-owned subsidiary of Deutsche Telekom, has responsibility for operating and expanding Deutsche Telekom's IT infrastructure and applications. DeTeCSM offers a wide range of IT services, including operation of computer centers, client-server and workstation systems and desktop, call center, web and office communication services. Deutsche Telekom consolidated its IT area in 1998 by combining its existing information technology subsidiary Deutsche Telekom Computer Service Magdeburg GmbH with its five other service and computer centers and with other information technology structures within the Deutsche Telekom group to form DeTeCSM. Deutsche Telekom continued this consolidation process in 1999 by bundling the remainder of its IT organization into DeTeCSM. DeTeCSM is responsible for supporting T-Online and T-Mart systems engineering and, since September 1999, for performing important tasks in the IT area for T-Mobil.

T-Nova commenced business operations as a service provider within the Deutsche Telekom group on July 1, 1999. T-Nova is responsible for developing products, services and networks, as well as IT systems, for the support of business processes within the Deutsche Telekom group.

Deutsche Telekom intends to intensify the use of the expertise of DeTeCSM and T-Nova in order to strengthen Deutsche Telekom's position in the growing IT market and to assist in the development of Deutsche Telekom into a full-service telematics service provider.



## **Sales and Service**

During 1999, Deutsche Telekom introduced further measures to attract and retain customers and continued its program to focus on the customer. All of these activities are aimed at optimizing customer service and fostering long-term customer loyalty in a highly competitive market.

Since 1998, the residential customer and business customer branch offices in each geographic region have been bundled under a common management for that region. Deutsche Telekom believes that this arrangement of its branch offices improves customer service and overall operations and enhances mobility in the market.

Deutsche Telekom has hired and maintains close contact with a number of special sales experts to ensure that its sales staff is always able to give its customers top-quality, state-of-the-art advice, even regarding very complex telecommunications requirements-including, for example, highly sophisticated products in the areas of mobile communications, data communications and multimedia. In 1999, Deutsche Telekom created special sales departments, each with its own specific expertise, that will support Deutsche Telekom's sales staff as necessary in difficult sales-related tasks.

### ***Sales Channels***

A key element in the optimization of Deutsche Telekom's sales organization in 1999 was the new focus on the international sales force. Deutsche Telekom has combined all of its sales support for international projects under its subsidiary DeTeSystem, thereby further improving the processes involved in international bidding and operations.

Deutsche Telekom operated 563 "T-Punkt" shops throughout Germany at end of 1999. These are one of Deutsche Telekom's most important sales channels for serving its residential customers and more and more small business customers. At every T-Punkt, customers can choose from Deutsche Telekom's extensive range of products, including the type of telephone connection and tariff category, telephones, fax machines and T-Mobil's mobile communications products. During 1999, Deutsche Telekom began implementing a site-optimization program for its T-Punkt shops to improve their cost-effectiveness and increasingly focused the activities of the T-Punkt shops in the strategically key areas of T-ISDN, T-D1 and T-Online. Deutsche Telekom also made preparations for the introduction of T-Punkt Business shops, which are oriented in particular toward mid-sized business customers. The first T-Punkt Business shop opened in January 2000.

Deutsche Telekom also has a broad range of sales partners under contract with a total of some 10,000 sales outlets at the end of 1999. These sales partners sell products and services of Deutsche Telekom, in addition to their own lines of products and services.

In 1999, Deutsche Telekom expanded upon the "customer segment management" department that was formed in 1998, through which Deutsche Telekom seeks to build stronger connections between customers and individual areas of Deutsche Telekom's business. This measure is intended to ensure product development that is focused on the needs of particular customers and classes of customers, particularly in the areas of multimedia, mobile communications and data communications.

Telemarketing is one of Deutsche Telekom's main sales channels. Using Deutsche Telekom's telemarketing hotline, customers can obtain information and order nearly all of Deutsche Telekom's products and services 24 hours a day, seven days a week.

Mail-order business has become an important part of Deutsche Telekom's sales operations. Customers can order by phone, through T-Online, by fax or by mail from Deutsche Telekom's semiannually published catalogue, which provides comprehensive information regarding new products and services. Deutsche Telekom intensified its on-line marketing efforts in particular during 1999.

Deutsche Telekom has increased sales activities in the Internet to a considerable degree. Deutsche Telekom's homepage provides customers with information about company products and services 24 hours a

day. Customers may order articles directly from the online catalogue. Special online promotions as well as constant updates on the offers on the start pages round off Internet sales activities. Since October 1999, T-Versand has operated an Internet Call Center, which supports online sales.

### ***T-Service***

“T-Service”, with its staff of over 32,000, is responsible for assembly, service and repair of the lines and terminal equipment of Deutsche Telekom’s customers. As a result of continuous improvements in employee training and in IT systems, Deutsche Telekom is now able to resolve one out of every three service problems without having to dispatch field-office personnel. Since the beginning of 1997, Deutsche Telekom has cut the average time for resolving service problems nearly in half—from about 20 hours to 11 hours. Moreover, in 1999, Deutsche Telekom succeeded in installing new telephone lines when promised in over 99 percent of all cases.

Since mid -1999, Deutsche Telekom processes orders automatically, which results in greater efficiency. In addition, alternative service methods such as remote configuration and remote maintenance were enhanced in 1999.

According to surveys conducted by Deutsche Telekom, business customers’ satisfaction with Deutsche Telekom’s delivery times for high-speed products and services and with the quality of Deutsche Telekom’s efforts to resolve service problems has improved considerably.

### ***Telekom Direkt – Integrated Complaint Management***

The ongoing combination of Deutsche Telekom’s organizational units for residential customers and business customers makes it possible for Deutsche Telekom to conduct its “Telekom Direkt” complaints management service more efficiently, by allowing Deutsche Telekom to handle customer complaints in an integrated manner. Telekom Direkt analyzes complaints from sales, service and customer-billing areas in order to identify and eliminate problems as quickly as possible. The complaints management units have been serving customers since the end of 1996.

### ***TelekomForum e.V.***

Deutsche Telekom continued and sought to intensify its dialogue with its business customers in 1999. One of Deutsche Telekom’s most effective resources in this regard is the TelekomForum, a business-customer advisory board founded in 1996. Currently, its members include about 300 of the largest German companies. In the TelekomForum working groups, customers and product managers develop ideas for the improvement of Deutsche Telekom’s portfolio of products and services. In this way, some of Deutsche Telekom’s customers have direct input into the development and innovation processes at Deutsche Telekom.

### ***Telecommunications Solutions Tailored to Particular Customer Groups***

In 1999, as in prior years, Deutsche Telekom’s sales marketing organization devised new combinations of products and services aimed at particular customer groups. These solutions consist of complete systems and packages, rather than single products. Deutsche Telekom also continued the “Partnership Management” program that was introduced in 1998, through which it provides information and support services for management consultants, engineering offices, telecommunications and IT consultants and systems houses. Deutsche Telekom also offers telecommunication consulting services to business customers. For each customer using these services, Deutsche Telekom seeks to develop and implement a telecommunications solution that is specially tailored to the customer’s corporate goals.

### ***Telekom Seminars***

Since 1993, Deutsche Telekom has been offering its business customers seminars designed to help them get the most out of state-of-the-art telecommunications products. Telecommunications technologies and services are developing very rapidly, and these seminars have become more and more popular. The number of

participants in these seminars in 1999 was 345, unchanged from 1998, while the number of these seminars increased nearly 20 percent from 1998 to 1999.

### **Research and Development**

Deutsche Telekom views research and development as an important tool for competing effectively and has committed significant resources to research and development activities. At December 31, 1999, Deutsche Telekom had approximately 4,400 employees (excluding MATÁV, One 2 One and max.mobil.) dedicated to research and development activities. Deutsche Telekom's expenditures on research and development amounted to approximately EUR 0.7 billion in 1999 (excluding MATÁV, One 2 One and max.mobil.), as compared to approximately EUR 665 million in 1998 and EUR 614 million in 1997. Approximately 40 percent of Deutsche Telekom's research and development expenditures in 1999 were devoted to software development. Deutsche Telekom has a variety of patents and licenses. No single patent or license is material to its business.

Research and development activities focus on the relevant growth areas for Deutsche Telekom. For online services, Deutsche Telekom develops specific portals for customer groups and is represented in key international consortia which are expected to have an influence on the future form of the Internet. In the networks area, Deutsche Telekom offers improved access to information and services through new technologies, such as T-DSL, for example. Deutsche Telekom's research and development activities also support the development of comprehensive telematics solutions by integrating the results of different projects. In the area of mobile communications, Deutsche Telekom has been active in development of the standards for new, future-oriented broadband mobile systems (UMTS). Deutsche Telekom has been a key member of consortia that have developed technologies and applications that serve as standards, including GSM, ISDN, and ATM. Deutsche Telekom's focus on the market is reflected not only in product development but also in mid- to long-term projects such as the optimization of user-friendly speech applications and increasing the carrying capacity of existing network infrastructures.

T-Nova Deutsche Telekom Innovationsgesellschaft mbH launched its activities in July 1999. Deutsche Telekom transferred its technology center, five software development centers and the operations of its development unit T-Berkom to T-Nova and handed the direction of its subsidiary Multimedia Software GmbH Dresden to T-Nova. T-Nova offers group-wide innovations and solutions from a single source – from research and development relating to products, services, networks and software to the support of market introduction as well as operations. Especially important is the integrative development of related information systems that operate and support the group's activities.

Through its corporate venture capital subsidiary T-Telematik Venture Holding GmbH ("T-Venture"), Deutsche Telekom provides capital for seed, early stage and first expansion investments both directly and through venture capital funds, to promising companies involved in the fields of information and communications technologies, including software technology. In April 1999, Deutsche Telekom increased the financing of T-Venture by EUR 102 million to a total of EUR 153 million. In this regard Deutsche Telekom has stepped up its commitment within the venture capital market. In 1999, T-Venture invested approximately EUR 72 million in a number of existing shareholdings and in 22 new shareholdings. In October 1999 T-Venture expanded its venture capital activities in the information technology area in the United States with the formation of T-Venture of America, Inc.

Deutsche Telekom's ventures in Southeast Asia and other foreign regions may expose its intellectual property to less protection than that afforded by Germany and the United States.

### **Regulation**

#### ***Liberalization***

The legal framework for the regulation of the telecommunications sector in Germany was completely transformed through the German Telecommunications Act, which came into force on August 1, 1996. The Telecommunications Act required the complete liberalization of the German telecommunications market from

January 1, 1998, as mandated by the directives of the European Commission. It represented the final step in the liberalization effort that began in 1989.

### ***The Regulatory Framework***

The Telecommunications Act allows virtually unrestricted market access by qualified entrants. The principal objectives of the Telecommunications Act are to promote competition in the telecommunications sector through regulatory measures, to guarantee appropriate and adequate telecommunications services throughout Germany and to provide for the regulation of frequencies. The Telecommunications Act aims to achieve these objectives principally by requiring licenses for the conduct of certain telecommunications activities, allocating frequencies, securing universal service and subjecting enterprises having dominant positions in particular telecommunications markets (so-called “market-dominant providers”) to a special regulatory framework.

In general, the regulatory approach under the Telecommunications Act does not differentiate between lines of business. It subjects the operation of conventional fixed-network transmission lines, broadband cable transmission lines, mobile telephone links and satellite links and all telecommunications services for the public to essentially the same regulatory regime.

### ***Regulatory Supervision***

Since January 1, 1998, regulatory functions under the Telecommunications Act have been carried out by a new supervisory body, the Regulatory Authority (*Regulierungsbehörde für Telekommunikation und Post*), established within the Federal Ministry of Economics (*Bundesministerium für Wirtschaft*) (the Economics Ministry). The Regulatory Authority has various powers under the Telecommunications Act, including the authority to grant and revoke licenses, control network access and interconnection, and approve or review the tariffs and tariff-related general business terms and conditions of market-dominant providers. It also has the authority to assign and supervise frequencies and impose universal service obligations. Three-member decision panels (*Beschlußkammern*) formed within the Regulatory Authority Decisions are responsible for making decisions regarding the grant of licenses in cases involving scarce frequencies, arrangements for special network access, the interconnection of public telecommunications networks, tariffs and tariff-related terms and conditions, and the imposition of universal service obligations.

The Regulatory Authority is supported by an Advisory Council (*Beirat*) consisting of nine representatives of each of the two houses of the German Parliament, but the matters with respect to which the Advisory Council must be consulted are very limited. The Advisory Council is involved in, among other things, decisions concerning license auctions regarding scarce frequencies and decisions obligating a licensee to provide universal service. The Advisory Council need not, however, be consulted with regard to tariff decisions. The Regulatory Authority is headed by a president and two vice-presidents who are nominated by the German Government upon the proposal of the Advisory Council.

### ***Licensing and Notification Requirements; Allocation of Frequencies***

The Telecommunications Act establishes licensing requirements for the following services:

- the operation of transmission lines for mobile telecommunication services for the public (Class 1 licenses),
- the operation of transmission lines for satellite services for the public (Class 2 licenses),
- the operation of transmission lines that cross property boundaries and that are used to provide public telecommunications services (Class 3 licenses) and
- the provision of voice telephony services to the public on the basis of self-operated telecommunication networks (Class 4 licenses).

Generally, except in the case of scarce telecommunications frequencies, the number of licenses is not limited, and each applicant satisfying basic qualification requirements is entitled to receive a license. In applying for a license, an applicant is entitled to specify the geographic scope and the type of activity subject to license. Conditions and obligations may at any time be attached to a license to promote the achievement of the objectives of the Telecommunications Act. At the end of 1999, 365 Class 3 licenses for the provision of transmission lines and 262 Class 4 licenses for the provision of voice telephony services had been granted, with a substantial number of applications for additional licenses under review.

A number of telecommunications services, such as text and data transmission services over leased lines, voice services for corporate networks and closed user groups, and the simple resale of voice telephony services, are not subject to licensing requirements. However, any person providing telecommunication services has to notify the Regulatory Authority of its operations. As of December 31, 1999, more than 1,200 providers of telecommunications services not subject to licensing requirements were registered with the Regulatory Authority. The operation of a broadband cable transmission network requires a license under the Telecommunications Act. The provision of programming content that is transmitted by means of the broadband cable network, on the other hand, does not require a license under the Telecommunications Act but is regulated under the radio and television laws of the various German Federal States. As a carrier of third party content, however, Deutsche Telekom has not applied for approval under state laws to provide programming content.

By law, frequencies are to be allocated upon request on a non-discriminatory basis according to objective and verifiable criteria. The Regulatory Authority is required to prepare a frequency usage plan to form the basis for frequency allocation. If, on the basis of this plan, frequencies are not available in sufficient quantity for licensing, the number of licenses within certain areas may be restricted, in which case the Regulatory Authority will award licenses by auction or competitive bidding. If multiple applications are submitted for the allocation of a particular frequency, the Regulatory Authority may require that frequency allocation also be determined by auction or competitive bidding. The Regulatory Authority may exclude a company from taking part in auctions or competitive bids for licenses or frequencies if the success of that company in an auction or bid would endanger competition based on principles of equal opportunity, as was the case with respect to Deutsche Telekom and its competitors in connection with the auction for the fourth German digital mobile communications license. The Regulatory Authority may also deny approval of an application to transfer a license on the same basis, regardless of whether scarce frequencies are involved. The Telecommunications Act provides, however, that the justifiable interests of a company in the application of new technologies must be considered when making decisions concerning whether to exclude that company from an auction or competitive bidding process or to deny approval of a proposed transfer.

During 1998 and 1999, the Regulatory Authority allocated “wireless local loop” frequencies to a total of 18 operators. Deutsche Telekom expects that the allocation of wireless local loop licenses will result in a rapid increase in competition in the local loop. For further information on competition in the local loop, see “Description of Business—Competition”.

On February 23, 2000 the Regulatory Authority published licensing requirements and auction rules for UMTS (Universal Mobile Telecommunications Services), the next generation of mobile telecommunication technology. Deutsche Telekom expects that the Regulatory Authority will auction licenses for UMTS in June or July of 2000.

Licenses and frequency allocations under the Telecommunications Act are subject to fees that are provided for in the Licensing Fees Ordinance (*Telekommunikations-Lizenzgebührenverordnung*) and the Frequency Fees Ordinance (*Frequenzgebührenverordnung*). In addition, under the Frequency Usage Fees Ordinance (*Frequenznutzungsbeitragsverordnung*), parties to whom frequencies have been assigned are required to make annual contributions to cover the costs incurred by the Regulatory Authority in planning and administering efficient and interference-free frequency usage.

In applying for a license under the Telecommunications Act, the applicant generally has considerable flexibility in choosing the scope and geographical range of the products and services it wishes to offer. This flexibility is limited, however, to the extent that the applicant is required to provide universal services, as described below under the heading “—Universal Services”. In addition, this flexibility may be limited in the case of mobile communications licenses or other licenses involving scarce frequencies. Even if a licensee is granted a license covering all of Germany, it generally may choose to provide only those service and geographic combinations that offer the best business opportunities. Thus, competitors of Deutsche Telekom not subject to universal service requirements are free to pursue opportunities in attractive markets, such as high density urban areas, to the exclusion of less attractive markets. This feature of the Telecommunications Act has resulted in substantially increased competition in lucrative markets within Germany. Local network operators now compete with Deutsche Telekom in various major cities in Germany.

### ***Special Requirements Applicable to Market-Dominant Providers***

#### *General*

A basic principle of the regulatory structure established by the Telecommunications Act is the distinction drawn between market-dominant providers and other companies operating in a market. Market-dominant providers and their affiliates are subject to special rules and obligations, including most importantly:

- the prior approval or retrospective review of tariffs and related business terms and conditions by the Regulatory Authority, insofar as such tariffs relate to a market in which the provider is dominant. See “—Pricing”.
- the obligation to offer competitors, on the basis of unbundling, special network access (including collocation) to essential services and facilities used by it internally on a non-discriminatory basis. See “—Special Network Access and Interconnection”.
- potentially, the obligation to provide universal services in a market or to contribute to the compensation of the provider of such services. See “—Universal Services”.
- the possible inclusion of restrictive conditions in licenses, such as, in the case of scarce frequencies, a condition not to combine with another provider in the same market or the rejection of bids for licenses and frequencies in case of scarce frequency capacity.

In addition, market-dominant providers must maintain segregated accounting systems to allow for transparency in dealings among their various licensed telecommunications services, and between such services and license-free services, in order to prevent, among other things, the cross-subsidization of services. In this regard, the Regulatory Authority may specify the structure of internal accounting for particular telecommunications services subject to license. Furthermore, under general competition law principles, market-dominant enterprises as a rule are required to refrain from abuses of their dominant positions. See “—Competition Law”.

Market dominance under the Telecommunications Act is determined by reference to the German Act Against Restraints on Competition (*Gesetz gegen Wettbewerbsbeschränkungen*). This Act provides, among other things, that a company is rebuttably presumed to have a dominant position if its share equals or exceeds one-third of a relevant market. For information regarding a proceeding on the European Union level relating to this issue, see “—The European Union”. The definition of the relevant product and geographic market and the determination that a company is market-dominant under the Telecommunications Act are made by the Regulatory Authority in agreement with the German Federal Cartel Office.

Deutsche Telekom believes that for some time to come the Regulatory Authority is likely to view Deutsche Telekom as holding a dominant position in the German market for public voice telephony services in the fixed network and in other markets, including most of those in which it had monopoly rights in the past. As a result, Deutsche Telekom expects that the provisions of the Telecommunications Act relating to the regulation of

market-dominant providers will be applied to Deutsche Telekom's activities in those markets. Considering that in many markets competitors of Deutsche Telekom are unlikely to reach dominant positions in the near future, Deutsche Telekom expects that for some period of time it will have to compete in significant markets with providers not subject to the requirements applicable to market-dominant providers. These competitors may therefore have more flexibility than Deutsche Telekom in terms of the selection of services offered and customers served, pricing and the grant of access to their networks. The definition of a market in which dominance exists requires a number of judgments, and is subject to change as competitive conditions further develop. As competition unfolds and the basis for regulatory determinations that are unfavorable to Deutsche Telekom diminishes, Deutsche Telekom intends to actively pursue a dialogue with the Regulatory Authority relating to the reevaluation of markets in which Deutsche Telekom is regarded as dominant. Deutsche Telekom takes the view that intensive competition already exists in important markets, particularly in the markets for domestic long-distance and international calls. In addition, Deutsche Telekom believes that the academic literature reflects increasing acceptance of the view that calling services for end-customers are contestable and that sector-specific regulation is no longer justified in markets for these products.

Every two years, both the Regulatory Authority and the Monopoly Commission (*Monopolkommission*) – an independent body that regularly issues reports on competitive conditions in Germany – are required to report to the German federal legislature whether equal and effective competition has been achieved in the relevant telecommunications markets, such that, in their view, special regulatory measures regarding market-dominant enterprises, particularly with regard to tariffs, are no longer necessary. In the first of these reports, which were submitted to the German legislature on December 3, 1999, both the Regulatory Authority and the Monopoly Commission generally concluded that effective competition in the telecommunications sector does not yet exist and that promotion of competition through regulatory intervention continues to be necessary. In its report, however, the Regulatory Authority noted that “in comparison to developments in the area of local networks, the markets for long-distance and international calls are characterized by a significantly greater intensity of competition.” The German government is expected to comment on the report of the Monopoly Commission in the summer of 2000.

On December 13, 1999, the Regulatory Authority announced that Deutsche Telekom would no longer be regarded as a dominant provider in the market for the interconnection of outgoing calls to foreign countries. Going forward, therefore, Deutsche Telekom's activities in this market will not be subject to the special regulations applicable to market dominant providers. In particular, the prices charged by Deutsche Telekom for this service are no longer subject to prior regulatory approval or retrospective review.

In an official publication of March 8, 2000, the Regulatory Authority determined that no German mobile operator has a dominant position in the market for interconnection of calls to mobile networks. T-Mobil therefore remains unregulated in this market.

### *Pricing*

Under the Telecommunications Act, tariffs and tariff-related business terms and conditions for the telecommunications services of market-dominant providers and their affiliates are subject to special regulatory oversight and control insofar as they relate to a market in which such dominance is determined to exist. Other tariffs are essentially unregulated under the Telecommunications Act. The tariffs of all providers in Germany are, however, subject to European and German law of general application, including competition and consumer protection laws and ordinances. In addition, tariffs for universal services must be set at an “affordable price”. See “—Universal Services”.

The Telecommunications Act distinguishes between tariffs which require prior regulatory approval and tariffs which do not require prior approval, but which are subject to retrospective review. Prior approval is required for the tariffs of a market-dominant provider in the areas of public voice telephony services, the operation of transmission lines for telecommunications services to the public, and access and interconnection services. All other tariffs including tariffs in respect of mobile telephony, subscription fees for cable transmission services and fees for satellite services may be put into effect without prior approval. However, in

markets in which a provider is considered to have a market dominant position, such tariffs are subject to retrospective review.

The Telecommunications Act provides for two basic approaches to prior approvals of tariffs: a price-cap approach and an approach involving individual approvals based on an assessment of the costs of providing a particular service (the “cost-based approach”). The Tariff Regulation Ordinance (*Telekommunikations-Entgeltregulierungsverordnung*) provides that priority is to be given to the price-cap approach. The cost-based approach applies to tariffs for services which under the regulation may not be, or are not, combined in “baskets” together with other services in accordance with the price-cap approach.

Under the price-cap approach, the Regulatory Authority establishes baskets of services and limits tariffs for the blend of services within those baskets through the use of a formula. The formula has the effect of requiring the affected company to reduce, or limiting the extent to which it can increase, the aggregate tariffs for services within a basket. Under the Telecommunications Act and the Tariff Regulation Ordinance, tariffs for voice telephony services and tariffs for transmission lines may not be combined in a single basket. Services may be combined within a basket only if the degree of competition with respect to those services does not substantially vary. Although the Tariff Regulation Ordinance generally provides that priority is to be given to the price-cap approach, tariffs for special network access services (including interconnection) generally were not subject to price-cap regulation through December 31, 1999, but were instead dealt with under the cost-based approach. After December 31, 1999, tariffs for special network access services generally are to be dealt with under the price-cap approach, although the Regulatory Authority has discretion to deal with these tariffs under the cost-based approach. If these tariffs are dealt with under the price cap approach, however, they may not be combined in a basket with services other than network access services.

The Regulatory Authority establishes an initial price benchmark for a basket by ascertaining the tariff level for each service in the basket. The price-cap formula imposed with respect to the basket allows for price increases or requires price decreases from the initial benchmark level based on the general inflation rate, reduced by an amount which reflects expected productivity improvements. Under the Tariff Regulation Ordinance, the Regulatory Authority is required to consider a variety of factors when establishing the price-cap formula, including the relationship of the initial tariff levels to the costs of efficient service provision and the productivity improvements being achieved by other enterprises in similar markets. When making a determination of price-cap benchmarks, the Regulatory Authority may require a company to submit detailed cost information. Under the Telecommunications Act, a market-dominant company must submit certain individual tariffs for approval, and must submit in connection therewith certain information. If a tariff proposal is below the limit allowed by the price-cap formula and all required documents have been submitted, the Regulatory Authority may be expected, under ordinary circumstances, to approve the proposal within two weeks of submission. Recently, the Regulatory Authority has also taken into account the effect on competition of prices being reviewed under the price-cap approach.

The price-cap approach to tariff regulation has been applied, most notably, to voice telephony service. Currently, the regulations provide for two baskets of services, one for residential and one for business customers, each subject to the same price-cap formula. Each of the baskets currently includes, among other services, subscriber access and local, long distance and international calling services. In the first price-cap period, which ran from January 1, 1998 to December 31, 1999, the price-cap formula called for tariff reductions of 4.3 percent compared to the level of Deutsche Telekom’s rates as in effect at the end of 1997. These required tariff reductions reflected required productivity improvements of 6 percent less a projected inflation rate of 1.7 percent, which was the rate of consumer price inflation in Germany in 1997. As of December 31, 1999, Deutsche Telekom’s tariffs in respect of the voice telephony services included in the relevant baskets were substantially below the levels required under the price-cap. The composition of the service baskets remains unchanged for the new price-cap period (January 1, 2000 to December 31, 2001). The price-cap formula calls for further tariff reductions of 5.6 percent in the first quarter of 2000 compared to the level of Deutsche Telekom’s rates as in effect at December 31, 1999, reflecting required productivity improvements of 6 percent less a projected inflation rate of 0.4 percent, which was the rate of consumer price inflation in Germany in 1999.



Deutsche Telekom has fulfilled this requirement through reductions in domestic long-distance and international tariffs that took effect in February and March 2000.

In August 1998, the Regulatory Authority approved a price-cap regulation procedure that allowed new optional tariffs to be approved under the price-cap approach. Optional tariffs enable customers to meet their specific communications needs at lower rates than under the standard tariff, while also enabling Deutsche Telekom to be more competitive in responding to the requirements of special groups of customers. Approval under the price-cap approach – rather than under the lengthier individual approval procedures that characterize the cost-based approach – permitted more rapid introduction of the new rates on the market. In 1998, Deutsche Telekom obtained approval for optional tariffs for both private and business customers. On December 23, 1999, however, the Regulatory Authority decided that in the future it will in general review cost documentation in connection with requests for approval of new optional tariffs, which formerly had not been included in the price cap baskets. This decision is expected to result in a longer approval process for optional tariffs.

In 1997, the former Post Ministry published a discussion draft concerning a possible framework for the price-cap regulation of transmission line tariffs. Renewed discussion of a possible framework for the price-cap regulation of transmission line tariffs may occur in 2000.

Tariffs requiring prior approval which are not dealt with under a price cap are based on the calculation of the costs of efficient provision of the relevant service. The costs of efficient service provision are based on the long-run incremental costs of providing a particular service, with an additional amount in respect of overhead costs (including an appropriate return on capital employed), to the extent such costs are necessary for the provision of the service. The applicant is required to submit extensive documentation as to its costs and the methods and parameters on which its determination of costs is based in respect of the service in question. The documentation is to reflect costs both directly and indirectly attributable to the service in question. The applicant must explain the basis on which indirect costs are attributed to the service, and the attribution must comply with relevant EU directives. Under the Telecommunications Act, applications for cost-based approvals must be approved or rejected within a maximum of 10 weeks of submission.

Under the cost-based approach, costs and expenses not based on the costs of efficient service provision may not be taken into consideration unless they were incurred as a result of a legal requirement or there is some other objective justification for their inclusion. While the Regulatory Authority calculates the cost of efficient service provision on the basis of data derived from Deutsche Telekom's cost accounting system, it subtracts all cost elements which it deems to be attributable to inefficiencies in Deutsche Telekom's existing cost structure. Due to its history as an integral and undifferentiated part of the Deutsche Bundespost operating as a state monopoly, Deutsche Telekom incurs costs which it believes would not be incurred by efficient private sector enterprises. As a result, Deutsche Telekom believes that, in calculating the costs of efficient service provision, the Regulatory Authority should take these costs into account. Discussions continue concerning the appropriate methodology to be used in the calculation of the long run incremental cost of the services subject to cost-based pricing.

As part of the Regulatory Authority's evolving approach to cost-based pricing, it commissioned an independent scientific institute to develop an analytical cost model (cost proxy model) which was intended to serve as a basis for future regulatory decisions concerning, among other things, network access rates and interconnection rates. In February 1999, this scientific institute published a model to be used for calculation of the long-run additional infrastructure costs of the local access network. Deutsche Telekom has criticized this model, which it believes systematically underestimates costs. The Regulatory Authority used the analytical cost model for the first time in connection with its review of access pricing in the local loop. For further information on local loop access, see “—Special Network Access and Interconnection—Local Loop Access”. A preliminary version of another analytical cost model, which was developed to calculate the costs of interconnection services, was published in April 1999. Because this model had not been fully developed, however, it could not be used for calculating the new interconnection rates that took effect on January 1, 2000. Deutsche Telekom has also criticized this model, which it believes does not take significant features of the existing network into account. According to public statements made by the Regulatory Authority, this model will be used for the first time

calculating element-based interconnection rates, which Deutsche Telekom expects will be implemented in February 1, 2001. For further information on element-based interconnection rates and on interconnection generally, see “—Special Network Access and Interconnection—Fixed-Fixed Interconnection”.

Tariffs may not be approved if they (1) contain surcharges which prevail solely as a result of the applicant's market-dominant position, (2) include discounts which prejudice the competitive opportunities of other companies in a telecommunications market or (3) discriminate among customers for the same or similar services in a telecommunications market, unless such surcharges, discounts or discriminatory features are objectively justified.

All tariffs of market-dominant providers in markets in which such dominance occurs are subject to ex-post regulatory examination, even if the tariffs were initially subject to prior approval. The Regulatory Authority must initiate examination proceedings if it becomes aware of facts indicating that such tariffs contain discounts or discriminatory features that are not objectively justified and may ultimately object to such tariffs and declare them to be invalid. In addition, with tariffs not subject to prior approval, the Regulatory Authority may initiate examination proceedings if it becomes aware of facts indicating that such tariffs contain surcharges, discounts or discriminatory features, as described above. The Regulatory Authority may object to such tariffs and declare them invalid. For example, the Regulatory Authority has initiated retrospective reviews of increases in broadband cable tariffs.

In connection with a retrospective review of broadband cable tariffs, the Cologne Administrative Court (*Verwaltungsgericht Köln*) issued a decision on March 18, 1999 in which it ruled that any corporate and business secrets relevant for a decision taken in a decision panel proceeding under the Telecommunications Act must be disclosed by Deutsche Telekom to the other parties involved in the proceeding. Deutsche Telekom filed a successful appeal against this decision. On May 12, 1999, the Münster Higher Administrative Court (*Oberverwaltungsgericht Münster*) ruled that Deutsche Telekom has a legitimate interest in protecting its corporate and business secrets, such that the Regulatory Authority may require disclosure of these secrets only when necessary to protect a special public interest. See “Legal Proceedings”.

In two decisions published in September and November 1999, the Regulatory Authority took the position that regulatory approval is required for Deutsche Telekom's offers of services to service providers that purchase services for purposes of resale. This position relates to offers of both local calls and domestic and international long-distance calls. According to these decisions, these offers to resellers are seen as voice telephony services and Deutsche Telekom is seen as dominant in the market for those services. Deutsche Telekom has applied for a preliminary injunction against the implementation of these decisions and has appealed these decisions to the administrative court. For further information on these legal actions, see “Legal Proceedings”. Although the Regulatory Authority has stated that the terms of these offers to resellers are subject to regulatory approval, the Regulatory Authority has not to date taken the position that Deutsche Telekom has an underlying obligation to offer services to resellers. Deutsche Telekom believes that the Regulatory Authority is likely to take the view that the terms of offers of local access services to resellers are also subject to regulatory approval.

### ***Special Network Access and Interconnection***

The Telecommunications Act imposes specific obligations concerning access to networks and interconnection. The Network Access Ordinance (*Netzzugangsverordnung*) under the Telecommunications Act provides details concerning these obligations and specifies the manner in which special network access (including interconnection) is to be effected.

#### ***General Principles***

Every operator of a public telecommunications network, irrespective of the operator's market position, is obligated, upon request, to make an offer to other operators for interconnection to its network. If the parties cannot reach an agreement on such interconnection, the Regulatory Authority will order the interconnection on such terms as it may determine. The contents of all agreements on special network access must comply with certain requirements of the Network Access Ordinance.

### *Provisions Applicable to Market-Dominant Providers*

A network operator that offers telecommunications services to the public and is a market-dominant provider in a particular market must allow every user access to its network or parts thereof. Such access may be granted via connections provided for all users (general network access) or via special connections (special network access), which includes the interconnection of networks. Limitations on access may be based only on the “essential requirements” set forth in the Open Network Provision Directive of the European Union (“EU”), which include preservation of the security of network operations, the maintenance of network integrity, the interoperability of services and the protection of data.

A provider dominant in a market for telecommunications services to the public must also grant to competitors active in the same market access to essential services it uses internally for the provision of such services upon the same conditions it applies to itself, unless the offer of different conditions can be objectively justified.

A market-dominant provider is required to unbundle its services for special network access, and must therefore offer its internally used essential services, including transmission, switching and operational interfaces, in such a way that other users need not purchase services they do not want. The market-dominant provider is not, however, required to unbundle its services to the extent that it can demonstrate that the requirement is not objectively justified in the particular circumstances. In addition, a market-dominant provider is obligated to allow other network operators to use transmission, switching and operational interfaces to its network on its premises on the same conditions it applies to itself (“physical collocation”). However, if the market-dominant provider demonstrates that physical collocation is not objectively justified, it must instead offer network access by “virtual collocation”, i.e., on terms equivalent to physical collocation in terms of economic, technical and operational conditions.

A market-dominant provider must adhere to the harmonized technical standards for interfaces and service features made binding by the EU with regard to open network provision.

Agreements on special network access (including interconnection) must be reported to the Regulatory Authority immediately following their execution. Conditions in such agreements must be based on objective criteria, be comprehensible and guarantee equal access.

The Regulatory Authority publishes in its official journal the time and place at which such agreements may be inspected. The Regulatory Authority also publishes the terms and conditions of such agreements if they can be expected to be included in a number of special network access agreements. Such terms and conditions then constitute a “basic offer” which must be included in the general business terms and conditions of a market-dominant provider.

### *Fixed-Fixed Interconnection*

As of December 31, 1999, Deutsche Telekom had concluded almost 100 interconnection agreements with competitors offering long distance and international calling services over the fixed-line network. The current level of interconnection pricing was approved by the Regulatory Authority on December 23, 1999. The rate structure established on December 23, 1999 is based on the distance which traffic travels between the point of interconnection with Deutsche Telekom’s network and the point of termination. The average interconnection rate has been reduced by approximately 24 percent compared with the average interconnection rate in effect from January 1, 1998 to December 31, 1999. The new interconnection rates are effective until January 31, 2001.

Deutsche Telekom had requested that the Regulatory Authority take the so-called access deficit into account in its decision of December 23, 1999. To ensure universal access, access fees in Germany have traditionally been set at a level which does not cover the full cost to Deutsche Telekom of providing access service. The shortfall in access revenue, which is called the “access deficit”, has instead been offset through

higher calling charges. Deutsche Telekom believes that competitors are given an unfair advantage if interconnection prices do not include a charge based on the portion of the cost of providing access service that is not recouped through access fees.

In its decision of December 23, 1999, however, the Regulatory Authority stated that Deutsche Telekom had not adequately documented the costs associated with the “access deficit” and declined to take any portion of the access deficit into account in its calculation of the costs of providing interconnection service. The Regulatory Authority instead based this calculation on an international benchmark. As a result, Deutsche Telekom takes the view that the interconnection rates established by the Regulatory Authority do not cover Deutsche Telekom’s costs for providing interconnection. Because of the fundamental significance of the interconnection decision of the Regulatory Authority, Deutsche Telekom has appealed this decision to the administrative court. For further information on this appeal, see “Legal Proceedings”. There can be no assurance as to the outcome of this appeal.

As a result of the large number of interconnection applications that Deutsche Telekom receives, it is not always technically feasible for Deutsche Telekom to make an interconnection point available to each applicant immediately after an agreement is reached with that applicant. On December 22, 1999 the Regulatory Authority published an approved proceeding under which Deutsche Telekom is entitled to give certain companies priority with regard to the time period needed to supply an interconnection point. This approved proceeding is applicable until June 1, 2000. In March 2000, the Regulatory Authority announced that it will examine Deutsche Telekom’s process for the provision of interconnection points. Some companies that already have functioning points of interconnection with Deutsche Telekom’s network have attempted to sublet their interconnection points in part to third parties who have applied for interconnection but not yet been connected to Deutsche Telekom’s network. Deutsche Telekom filed a complaint with the Regulatory Authority against sub-leasing of interconnection points, and in series of decisions starting in December 1999 the Regulatory Authority determined that sub-leasing of interconnection points is impermissible. Several competitors have appealed this decision of the Regulatory Authority to the administrative courts. For further information on these appeals, see “Legal Proceedings”.

Deutsche Telekom is planning to change the structure of interconnection tariffs with effect as of February 1, 2001. In place of the current structure of interconnection tariffs, in which the cost of interconnection for any given call depends largely on the distance travelled by the call on Deutsche Telekom’s network, Deutsche Telekom intends to introduce an element-based tariff structure, in which the cost of interconnection for any given call would be determined by reference to the number of network elements that are used in transmitting the call. Deutsche Telekom currently is discussing different forms of the proposed new tariff structure with the Regulatory Authority and with competitors. Deutsche Telekom’s position on this issue has been published by the Regulatory Authority for public comments. Deutsche Telekom currently expects that the Regulatory Authority will reach a decision on the proposed new tariff structure in the second half of 2000.

During 1998, Deutsche Telekom conducted discussions with the Regulatory Authority about the terms of interconnection agreements with carrier network operators who provide national services with only minimal investments in infrastructure. These carriers were, in Deutsche Telekom’s view, generating atypical traffic that led to inefficient use of Deutsche Telekom’s fixed network. As a result of these discussions, starting in May 1999, the Regulatory Authority issued a series of decisions that permitted Deutsche Telekom to require these carriers to build up new points of interconnection if the volume of traffic they generated at any single point of interconnection exceeded a threshold specified by the Regulatory Authority. Deutsche Telekom subsequently implemented this requirement in all interconnection contracts. One carrier, however, filed a suit against this decision of the Regulatory Authority, and in November 1999 the Cologne Administrative Court ruled that this decision of the Regulatory Authority was inconsistent with the EC Open Network Provision Directive. Both Deutsche Telekom and the Regulatory Authority have appealed this decision to the Appellate Administrative Court, which in February 2000 overruled the decision of the Cologne Administrative Court. For further information on this appeal, see “Legal Proceedings”. Deutsche Telekom is now permitted to require special carriers to build up new points of interconnection if their traffic at one point of interconnection exceeds a certain threshold.

In an official publication issued in March 1999, the Regulatory Authority confirmed certain principles that are to govern competitors' entitlement to interconnection with Deutsche Telekom's network. Under these principles, carrier network operators are required to have at least one switch and at least three transmission paths to qualify for the interconnection rates established by the Regulatory Authority's interconnection decisions. Deutsche Telekom is also entitled in principle to demand surcharges from carriers that generate atypical traffic flows if those traffic flows result in additional network costs for Deutsche Telekom. Nevertheless, the Regulatory Authority denied approval in May 1999 for a set of surcharges of this type that had been submitted by Deutsche Telekom for regulatory approval in May 1999.

#### *Mobile-Fixed Interconnection*

In April 1998, the Regulatory Authority opened an inquiry into mobile-fixed interconnection rates in order to determine whether the rates are based on the costs of efficient service provision. In the meantime, Deutsche Telekom agreed with mobile carriers on a plan for gradually reducing mobile-fixed interconnection rates to the level of fixed-fixed interconnection rates, with parity to be achieved by January 1, 2000. Implementing this agreement, Deutsche Telekom reduced mobile-fixed interconnection rates effective January 1, 1999. Although Deutsche Telekom takes the position that it is not a market-dominant provider in the national market for termination of traffic from mobile networks, Deutsche Telekom agreed to submit the new tariffs for approval in an application to the Regulatory Authority. In a decision of March 29, 1999, the Regulatory Authority approved the reduction in mobile-fixed interconnection rates until June 30, 1999, and obligated Deutsche Telekom to then further reduce these rates to the level of fixed-fixed interconnection rates. Deutsche Telekom has decided not to appeal this decision and has complied with the terms of the decision. Deutsche Telekom's mobile-fixed interconnection rates match the reduced fixed-fixed interconnection rates in effect starting January 1, 2000. Like the fixed-fixed interconnection rates, these mobile-fixed interconnection rates will be valid until the end of January 2001. For a discussion of developments at the EU-level, see "—Competition Law".

#### *Fixed-Mobile Interconnection*

In December 1999, Deutsche Telekom reached an agreement with T-Mobil to reduce T-Mobil's fixed-mobile interconnection rates as of February 1, 2000. As a result, Deutsche Telekom has reduced the standard rates it pays to terminate calls in the digital mobile network of T-Mobil as of February 1, 2000. In February and March 2000, Deutsche Telekom also reached agreements with VIAG Interkom, E-Plus and Mannesmann Mobilfunk regarding the reduction of fixed-mobile interconnection rates.

#### *Local Loop Access*

As indicated above with regard to special network access, market-dominant providers are obligated to unbundle their service offerings to the extent demanded by their competitors in a public telecommunications market unless the market-dominant provider can demonstrate that unbundling is not objectively justified under the particular circumstances. In light of this obligation, various competitors have asked Deutsche Telekom to provide unbundled access to Deutsche Telekom's subscriber lines (i.e., the local loop). By allowing competitors to connect to customer access lines in local networks, unbundling of the local loop allows competitors to gain direct access to subscribers without having to build local networks of their own. In this way, competitors are able to use Deutsche Telekom's customer access lines to offer a wide range of local services directly to the customer, who is generally unaware that the subscriber line running into his premises is rented from Deutsche Telekom, and Deutsche Telekom only receives a flat monthly fee rather than usage-based revenues.

In December 1997, Deutsche Telekom began concluding agreements with a number of competitors regarding unbundled access to the local loop. In connection with these agreements, Deutsche Telekom submitted proposed tariffs for the provision of unbundled access to the local loop to the Regulatory Authority for approval. This application was rejected in March 1998, and a temporary monthly rate of DM 20.65 (EUR 10.56) for access to the two-wire copper line, the product variety most important to the competitors of Deutsche Telekom, was imposed. In its decision, the Regulatory Authority took issue with elements of Deutsche Telekom's cost statements, claiming that its estimated cost of capital was too high, the useful life of

depreciated assets too short, and that inadequate evidence had been submitted concerning an operating cost surcharge and overhead rates.

Deutsche Telekom did not believe that the imposed tariff covered its relevant costs, and a period of intensive judicial and regulatory proceedings began. Deutsche Telekom filed a suit challenging the decision of the Regulatory Authority with the appropriate administrative court, and simultaneously pursued further negotiations with the Regulatory Authority. Two further tariff applications were submitted in 1998, both of which were withdrawn in agreement with the Regulatory Authority in order to permit more time for the evaluation of cost data and underlying economic concepts. Deutsche Telekom then made a new tariff filing with the Regulatory Authority in January 1999, in which it applied for approval of a monthly tariff of DM 37.30 (EUR 19.07) for access to a two-wire copper line. In part on the basis of the analytical cost model described in “—Pricing” above, the Regulatory Authority gave approval to a price of DM 25.40 (EUR 12.99) effective February 8, 1999, and thereby raised the provisional monthly tariff set at DM 20.65 (EUR 10.56) for two-wire copper in March 1998. In addition, the Regulatory Authority set one-time installation fees ranging from DM 191.64 (EUR 97.98) to DM 337.13 (EUR 172.37) and a fee for terminating access to two-wire copper line of DM 107.70 (EUR 55.07), each of which was lower than the fees requested in Deutsche Telekom's application. These new fees, including the monthly tariff, are to apply until March 31, 2001. While the Regulatory Authority again took issue with aspects of Deutsche Telekom's cost calculation, the decision appears to recognize for the first time that Deutsche Telekom is entitled to recoup through access prices a portion of its historical costs. Both Deutsche Telekom and its competitors have challenged aspects of this latest decision in court. For further information about this legal challenge, see “Legal Proceedings”. The outcome of this legal challenge is uncertain.

In addition to decisions relating to the appropriate level of interconnection pricing, the Regulatory Authority has also made determinations relating to the technical point at which interconnection must be provided. In one such decision, the Regulatory Authority took the position that Deutsche Telekom must provide unbundling in accordance with the demands of competitors to the extent technically feasible. In another decision, the Regulatory Authority decided that Deutsche Telekom has to grant unbundled access to the part of subscriber access lines located within customers' premises. Deutsche Telekom has filed suits challenging these decisions. For further information relating to these suits, see “Legal Proceedings”. In December 1999, without recognizing a legal obligation to do so, Deutsche Telekom submitted to the Regulatory Authority a request for approval of the one-time connection fee and the monthly rental charges that Deutsche Telekom proposed to charge third parties for direct access to the part of subscriber access lines located within customers' premises. In February 2000, the Regulatory Authority approved the one-time connection fee proposed by Deutsche Telekom but denied approval for the proposed monthly rental charge. In addition, competitors have submitted requests to the Regulatory Authority for further unbundling of local loop access. Deutsche Telekom has submitted comments on these requests to the Regulatory Authority.

On February 9, 2000, the European Commission published a working document relating to unbundled local loop access. For further information on this matter, see “—The European Union”.

#### *Internet Access*

In January 1999, T-Online introduced a change in the pricing of its Internet access products, combining or bundling the telephone “dial-in” connection to the Internet with the Internet platform services into one product. In connection with this bundled product, Deutsche Telekom offered telephone connection capacity to T-Online on a wholesale basis. In April 1999, several competitors of T-Online lodged a complaint with the Regulatory Authority alleging that, in introducing this bundled product, Deutsche Telekom and T-Online had abused their market dominant positions in the relevant markets. In June 1999, the Regulatory Authority ruled that Deutsche Telekom did not engage in illegal anti-competitive practices or abuse a market-dominant position, but that Deutsche Telekom could no longer offer a special volume discount for the telephone connection capacity. One competitor has also instituted proceedings against Deutsche Telekom before the European Commission in connection with bundled Internet access products. For further information on these proceedings, see “Legal Proceedings”. Several competitors of Deutsche Telekom have filed administrative lawsuits seeking to compel

the Regulatory Authority to reopen its proceedings relating to the prices that Deutsche Telekom charges for access to its Internet platform.

For further information regarding the status of these administrative and legal proceedings, see “Legal Proceedings”.

#### *Numbering, Number Portability and Carrier Selection*

Under the Telecommunications Act, the Regulatory Authority is assigned responsibility for developing and administering a national telephone numbering system. Upon application, each telecommunications network operator and service provider is to receive assigned ranges of telephone numbers for use by its customers. The ranges assigned are within existing area codes. Applicants are assessed fees in accordance with the Telecommunications Numbers Fees Ordinance (*Telekommunikationsnummerngebührenverordnung*), which was promulgated in August 1999, but with retroactive effect to August 1, 1996. In modifying the structure and configuration of telephone number ranges subject to assignment, the Regulatory Authority is required to consider the interests of the parties concerned, focusing in particular on conversion costs that would be incurred by licensees, other telecommunications services providers, and customers.

In connection with the fees to be paid by operators for the assignment of number ranges, the Regulatory Authority issued a decision in October 1999 that requires Deutsche Telekom to pay a fee for numbers (other than service numbers) allocated before the liberalization of the German telecommunication market. The amount of these fees imposes a considerable financial burden on Deutsche Telekom. Deutsche Telekom believes that the imposition of these fees is not authorized under existing law and therefore has appealed this decision of the Regulatory Authority to the administrative courts. For further information on this appeal, see “—Legal Proceedings”.

Since January 1, 1998, Deutsche Telekom and other telecommunications network operators have been required to allow their customers to pre-select the network operator that is to transmit their calls. In addition, customers are able to override their pre-selected carrier each time they place a call by entering another operator's numeric prefix before dialing the telephone number they wish to call. Also, since January 1, 1998, Deutsche Telekom and other telecommunications network operators have generally been required to provide number portability. This permits customers to keep their assigned telephone numbers when they choose to change their network operator as long as they do not also change the physical location from which they access the network. Number portability and the provisions on carrier selection allow customers to switch easily among competing carriers.

Under the Telecommunications Act, the Regulatory Authority is authorized to suspend the obligation to provide number portability and carrier selection where the provision of such service is not technically feasible. The Regulatory Authority has provisionally suspended the obligations for operators of mobile communications networks to ensure pre-selection and call-by-call selection. The obligation to provide number portability can also be suspended to the extent that such suspension does not significantly impair competition or harm customers. In December 1999, the Regulatory Authority issued a decision extending the suspension of number portability in the mobile market until the end of April 2000 and started a consultative process with market participants regarding future regulatory policy in this area.

In January 1998, Deutsche Telekom filed an application with the Regulatory Authority for the approval of a one-time charge of DM 49 (EUR 25.05) for number portability. In addition, Deutsche Telekom filed applications for approval of charges for carrier pre-selection of DM 49 (EUR 25.05) for 1998, DM 35 (EUR 17.90) for 1999 and DM 20 (EUR 10.23) for 2000. With regard to pre-selection charges, the Regulatory Authority decided in June 1998 that Deutsche Telekom will be allowed to charge DM 27 (EUR 13.80) in 1998, DM 20 (EUR 10.23) in 1999 and DM 10 (EUR 5.11) in 2000. The application for approval of a charge for number portability was rejected on April 7, 1998, on the grounds that portability does not involve the rendering of any service to the customer, and that furthermore the law does not allow such a charge to be levied. Deutsche Telekom has appealed this decision. A subsequent application for approval of a one-time charge for number

portability was also rejected by the Regulatory Authority. Deutsche Telekom has filed a legal suit challenging this decision.

### ***Universal Services***

The Telecommunications Act includes provisions to ensure the availability of certain basic telecommunications services (referred to as “universal services”) throughout Germany. Additional details concerning universal service requirements are provided in the Universal Service Ordinance (*Telekommunikations-Universaldienstleistungsverordnung*) and in the Telecommunications Customer Protection Ordinance (*Telekommunikations-Kundenschutzverordnung*). See “—Customer Protection Ordinance”.

The Universal Service Ordinance defines “universal services” to include public fixed-network voice telephony with certain ISDN features, directory services, telephone books, public pay phones and certain categories of transmission lines. These services must be universally available to all customers at an affordable price. According to the Universal Service Ordinance, the price for public voice telephony is considered affordable if it does not exceed the average price in real terms on December 31, 1997 of voice telephony service for private households located outside cities with more than 100,000 inhabitants. This provision is intended to prevent telecommunications providers from subsidizing price reductions in highly competitive urban areas by charging higher prices in suburban and rural markets. Prices for directory services, telephone books, public pay phones and the specified transmission lines are considered affordable if they are based on the costs of efficient service provision.

Under the Telecommunications Act, if a universal service in a particular product and geographic market is not being appropriately and adequately provided, or where there is reason to believe that such provision will not be accomplished, each licensee with a share of at least 4 percent of the product market for such service or a dominant position in the relevant product and geographic market can be required to contribute to the provision of such universal service.

In any such case, as an initial step, the Regulatory Authority will issue a public call requesting the voluntary provision of the particular universal service. If within one month after such call, no provider has offered to provide such service without special compensation, the Regulatory Authority may oblige any licensee that is a market-dominant provider in the relevant product and geographic markets to provide such service. If a provider that has been assigned such an obligation furnishes evidence that the provider will be entitled to claim compensation under the Telecommunications Act for providing such service, the Regulatory Authority may, in lieu of requiring the obligated provider or providers to provide the universal service, solicit bids for the provision of the universal service, with a view to assigning the obligation to the bidder requiring the least compensation.

A provider required by the Regulatory Authority to provide a universal service is entitled to receive compensation under the Telecommunications Act if the provider proves that the long-term additional costs of providing the universal service efficiently in the relevant geographic market, including adequate interest on capital employed, exceed the revenues therefrom, calculated on the basis of affordable prices. Where compensation is granted for the provision of the universal service, each licensee with a share of at least 4 percent of the product market must contribute to such compensation by means of a universal service levy. Significant details concerning the way in which this compensatory system will function remain to be determined.

Under the Universal Service Ordinance, which entered into effect at the beginning of 1998, market dominant providers in the relevant markets may be required to provide universal services. For the time being, Deutsche Telekom is required to provide customers voice telephony and other universal services within the framework of the law and Deutsche Telekom's General Terms and Conditions. Deutsche Telekom currently provides the universal services specified by the Universal Service Ordinance without compensation, and expects that in a competitive market these services will continue to be available universally due to sufficient offerings by all market participants. Deutsche Telekom expects that it will, for some time to come, be the only provider considered suitable to be subjected to the obligation to offer universal services. Accordingly, it may prove difficult for Deutsche Telekom to cease providing universal services in some markets, although Deutsche



Telekom may be able to claim special compensation. If Deutsche Telekom decides to stop providing any of the services referred to in the Universal Service Ordinance, it must give at least one year's advance notice.

If Deutsche Telekom becomes required to offer a universal service, and if the revenues from providing that service are insufficient to cover its additional costs, the compensation granted under the Telecommunications Act may be insufficient to cover the full costs to Deutsche Telekom of providing that service because it will not receive compensation in an amount that corresponds to its market share. Furthermore, in the event that other operators are assigned universal service obligations, Deutsche Telekom may be required to contribute to their compensation.

Every licensee that offers voice telephony services to the public is required to provide its subscriber data to other operators of directory services and publishers of telephone books, for the specific purposes of such services. A fee may be charged for the provision of such data based on the costs of efficient service provision. Subscriber data must be provided to other third parties against payment of an appropriate fee. Deutsche Telekom complies with this obligation and provides its subscriber data, taking data-protection requirements into account, to other operators of directory services and publishers of telephone books. In 1998, the rates charged by Deutsche Telekom for such provision were reviewed by the Federal Cartel Office, after competitors claimed that the prices were abusively high. By decision of January 13, 1999, the Federal Cartel Office suspended these proceedings. As part of its abusive-practices investigation, the Federal Cartel Office determined Deutsche Telekom's costs for efficient provision of subscriber data and concluded that these costs must be shared by all users of the data on a use-dependent basis. Deutsche Telekom has undertaken to charge cost-based prices for provision of subscriber data to operators entitled thereto on this basis.

### ***Customer Protection Ordinance***

The Telecommunications Customer Protection Ordinance ("Customer Protection Ordinance"), as currently in effect, covers the special rights and obligations between providers of telecommunications services to the public and their customers, who may be either end customers or competitors to the extent that they have concluded a contract with the respective telecommunications provider. As a result, nearly all Deutsche Telekom products and services, with only a few exceptions, such as the marketing of telephones, are subject to the provisions of the Customer Protection Ordinance.

Under the provisions of the Customer Protection Ordinance, market-dominant providers must make their services available to everyone on the same terms. Exceptions must be objectively justified. Further, although telecommunications providers generally have some flexibility in determining whether to offer services in "bundles", the dominant company is required to offer individual services on an unbundled basis when there is a "general demand" for those individual services in the market. This requirement applies to the description of individual services and the relevant service specifications, as well as the billing for such services. Offering individually listed services as a package is, however, still allowed.

In addition, the market-dominant provider must, upon request, eliminate or repair any malfunction immediately, including at night, on Sundays or public holidays. Customers can request a free itemized statement of their calls, which must be detailed enough to allow them to check and monitor the accuracy of their bills. In the event that a customer has made no other arrangements with another provider, the customer will receive a combined bill from his local carrier. In such cases, the charges for all calls which the customer has made via other providers must be listed separately. Finally, starting January 1, 2001, telecommunications service providers must ensure that any customer who has set a ceiling for his calling charges does not exceed it. The Customer Protection Ordinance also allows for certain limitations on the liability of telecommunication service providers.

In October 1999, Deutsche Telekom announced that, starting on April 1, 2000, it would no longer collect receivables for competitors and generally would not provide services to competitors other than services that are mandatory under the Customer Protection Ordinance. In Deutsche Telekom's view, these mandatory services include billing for competitors and forwarding to competitors any payments made by customers to Deutsche Telekom for calls made via those competitors. In response to a complaint submitted by a competitor, however,

the Regulatory Authority instituted proceedings against Deutsche Telekom in October 1999 alleging that the implementation of Deutsche Telekom's plans to discontinue collecting receivables for competitors would constitute an abusive practice. In February 2000, the Regulatory Authority ruled that Deutsche Telekom would be required to continue to collect receivables for competitors until December 31, 2000 on the same terms and conditions as prevailed in 1999, and that not later than June 30, 2000 Deutsche Telekom would be obligated to submit for regulatory approval proposed terms and conditions for the provision of these services after December 31, 2000. Deutsche Telekom has appealed these rulings of the Regulatory Authority to the administrative courts. According to these rulings, however, Deutsche Telekom will no longer be obligated to manage customer complaints, send late payment warnings or enforce late payments on behalf of competitors after January 1, 2001.

### ***Use of Public Rights of Way***

Under the pre-Telecommunications Act laws, Deutsche Telekom was entitled to utilize the Federal Republic's rights of way over public property free of charge. Pursuant to the Telecommunications Act, the Federal Republic's right to use such rights of way free of charge has been transferred to licensed operators of transmission lines for public telecommunications services. Deutsche Telekom's right to utilize such rights of way has been carried over under its license. The Telecommunications Act requires that operators of transmission lines obtain the consent of the authority responsible for the maintenance of the relevant public ways before laying new transmission lines or modifying existing transmission lines. Deutsche Telekom has agreed on a cost-saving and delay-avoiding procedure with the federal association of municipal authorities to simplify the process of obtaining the required consent.

Under the Telecommunications Act, if the establishment of new transmission lines by an operator through the use of public rights of way is not feasible or the cost is disproportionately high, an operator of an existing transmission line using those public rights of way may be obligated to grant to the operator of those new transmission lines the joint use of its installations, such as ducts and antenna posts, for adequate compensation, provided no major construction work is required and such joint use is economically feasible.

### ***The European Union***

Germany is a Member State of the EU. As such, it is required to enact EU legislation in its domestic law and to take EU legislation into account in applying its domestic law. EU legislation can take a number of forms. Regulations have general application, and are binding in their entirety and directly applicable in all Member States. Directives are binding, but national authorities may choose the form and method of implementation.

The European Commission used its powers under Article 86 (3) of the Treaty of Rome to open telecommunications markets in the Member States by issuing directives providing for liberalization, i.e., abolishing monopoly rights of the state-owned telecommunications operators. One of the most important of these directives was the full competition directive issued in March 1996, under which public voice telephony services were liberalized in the majority of the Member States, including Germany, with effect from January 1, 1998. On June 23, 1999 the European Commission adopted a directive amending Directive 90/388/EEC (the "Cable Directive"), which deals with the regulation of broadband cable networks. The amendment to the Cable Directive requires that the telecommunications activities and broadband cable activities of market-dominant operators be structurally separated, i.e. dominant operators are required at least to set up a separate subsidiary for their broadband cable networks (See "*—Competition—Broadband Cable and Broadcasting*"). The amendment provides for a review after the required structural separation has been accomplished, in any event not later than December 31, 2002. The amendment further provides for a procedure whereby national regulatory authorities may request that the European Commission perform such a review. This review could lead to additional measures by the European Commission, including imposition of divestiture obligations, if it finds that European competition rules are infringed.

The EU has also adopted a number of directives and recommendations regarding open and efficient access to and use of public telecommunications networks and public telecommunications services. These directives and recommendations deal with what are referred to as the ONP (Open Network Provision) requirements, which are intended to harmonize technical interfaces, usage conditions and tariff principles throughout the EU and to

ensure objectivity, transparency and non-discrimination in access to and use of public telecommunications networks and public telecommunications services. In January 1999, the European Commission issued a decision on the harmonized introduction of the third generation of mobile systems (Universal Mobile Telecommunications Systems or "UMTS") throughout the European Community. This decision contains provisions for roaming, licensing and frequencies and sets January 1, 2002 as the target date for effective provision of UMTS networks and services. At the end of 1999, the European Commission published a review of European Union telecommunications regulations titled "Toward a New Framework for Electronic Communications Infrastructure and Associated Services." This review outlines the existing European telecommunications regulatory framework and a proposal for a new regulatory framework that would take into account the development of competition in the European telecommunications sector. The European Commission is expected to consider comments regarding this review that are submitted by market participants in the first half of 2000 and to propose further actions thereafter, which may include the amendment of existing directives in the telecommunications area.

On February 9, 2000, the European Commission published a draft for recommendation relating to unbundled local loop access. This document describes three complementary options for granting access to the local loop: unbundled access to the copper paired wire, unbundled access to the high frequency spectrum and high speed bit stream access. Deutsche Telekom believes that if these proposals were enacted in their current form, they would lead to duplicative regulation to the disadvantage of those European Union member states, such as Germany, whose domestic laws already mandate unbundled access to the local loop.

Among the proceedings that the European Union has initiated in the area of telecommunications is a proceeding against the Federal Republic alleging that the Federal Republic has not fully implemented a European Union directive requiring a presumption of market dominance in the case of any telecommunications company that has a market share of at least 25 percent in a relevant market.

Further directives, recommendations, communications and measures of the EU to harmonize the telecommunications sector in European Union member states are to be expected.

### ***International Obligations***

Over 70 member countries of the World Trade Organization ("WTO") representing over 90 percent of the world's basic telecommunications revenues, including European Union member states and the United States, have entered into the Basic Telecommunications Agreement ("BTA") to provide market access to some or all of their basic telecommunications services. This agreement took effect on February 5, 1998. The BTA is part of the General Agreement on Trade in Services, which is administered by the WTO. Under the BTA, signatories have made commitments to provide "market access", under which they are to refrain from imposing certain quotas or other quantitative restrictions in specified telecommunications services sectors, and to provide "national treatment", under which they are to avoid treating foreign telecommunications service suppliers differently than national service suppliers. In addition, a number of signatories have agreed to the pro-competitive principles set forth in a reference paper relating to anti-competitive behavior, interconnection, universal service, transparency of licensing criteria, independence of the regulator and scarce resources. In complaints filed by one U.S. carrier in February 1999 and by two industry groups January 2000, the U.S. Trade Representative has been asked to determine whether certain aspects of the telecommunications regulatory framework in Germany comply with Germany's obligations under the BTA. The U.S. Trade Representative has announced that, until June 15, 2000, it will further review aspects of the interconnection regime, licensing fees, transparency of cost data in connection with price regulation and billing and collection procedures for new entrants.

### ***Competition Law***

Deutsche Telekom is subject to German competition law, the competition rules of the EU and the competition laws of the various jurisdictions in which it conducts its business.

The German Act Against Restraints on Competition (*Gesetz gegen Wettbewerbsbeschränkungen*) prohibits the abuse of market-dominant position as well as the distortion of competition through horizontal agreements or collusive behavior by market participants. Agreements or behavior that impose vertical restraints on competition are generally permitted, but may be prohibited by the cartel authorities if they pose a threat of significant distortion to the relevant market. They are prohibited if they constitute price fixing.

Mergers, including the creation of joint ventures, must be notified to the Federal Cartel Office before they can be executed if the concerned undertakings' turnover reaches a certain threshold but remains below the threshold above which proposed mergers must be notified to the European Commission. The Federal Cartel Office will prohibit mergers if they create or strengthen a market-dominant position. The German cartel authorities are empowered to enforce these laws and may impose sanctions if their orders are contravened. Before taking action against abuses of a market-dominant position in the telecommunication sector, the Federal Cartel Office must consult with the Regulatory Authority. Market participants damaged by abusive practices on the part of a market-dominant provider may sue for compensation under the Telecommunications Act as well as under the German Act Against Restraints on Competition.

The EU competition rules have the force of law in the Member States and are therefore applicable to Deutsche Telekom's operations in the telecommunications market. The main principles of the EU competition rules are stipulated in Articles 81 and 82 of the Treaty of Rome (which were Articles 85 and 86 of that treaty prior to March 7, 1999) and in the European Merger Control Regulation.

Article 81 I of the Treaty of Rome prohibits collusive behavior between competitors which may affect trade between Member States and which restricts, or is intended to restrict, competition within the EU. Article 82 prohibits any abuse of a market-dominant position within a substantial part of the EU that may affect trade between Member States. These rules are enforced by the European Commission in cooperation with the national competition authorities (i.e., in Germany, the Federal Cartel Office). In addition, the national courts have jurisdiction over alleged violations of EU competition law.

In early 1999, a complaint was filed with the EU Commission alleging that Deutsche Telekom would abuse its market-dominant position in telephone network communication by combining charges for Internet access and local calls in a single low-cost package. See "Legal Proceedings".

In 1999 and prior years, Deutsche Telekom received numerous requests for information from the European Commission. Through inquiries of this kind, the European Commission monitors the development of competition in the telecommunication markets in all Member States of the European Union. For example, the European Commission is investigating the level of mobile communications prices in all Member States and in this context is inquiring into whether the interconnection rates between fixed and mobile communication networks and the amounts Deutsche Telekom retains on calls to mobile networks are too high. The Commission has announced that it will stay its proceedings while the national regulatory authorities pursue their own investigations. See "—Special Network Access and Interconnection—Mobile-Fixed Interconnection". Further investigations and other measures of the European Commission aimed at promoting competition in the European telecommunications sector may be expected. Deutsche Telekom and other telecommunications providers currently are subject to sector-specific inquiries in the fields of leased lines and roaming.

The parties to a cooperation agreement may voluntarily ask the European Commission for a clearance that their cooperation does not violate the prohibition on collusive practices established by the Treaty of Rome. Furthermore, the European Commission may grant an exemption to the prohibition if the parties show that the benefits of the cooperation for the consumer or for research and development outweigh the supposed distortion of competition.

The European Merger Control Regulation requires that all mergers, acquisitions and joint ventures involving participants meeting a certain turnover threshold be submitted to the European Commission for review, rather than to national authorities. Concentrations are prohibited if they pose the risk of creating or strengthening a dominant position on a relevant market.

## **Employees**

### ***Civil Servants***

As of December 31, 1999, approximately 41.3 percent of the employees of Deutsche Telekom (excluding subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995) were civil servants. No employees hired after January 1, 1995 have been granted civil servant status. Pursuant to the laws that applied to the conversion of Deutsche Telekom to a stock corporation, Deutsche Telekom's civil servant employees retained their civil servant status when that conversion occurred. As such, the terms and conditions of their employment and the benefits owed to them continue to be governed by German regulations regarding civil servants. In particular, civil servant salaries are set by statute and not by Deutsche Telekom or by collective bargaining agreements. In addition, civil servants are tenured employees and may not be unilaterally terminated except in extraordinary, statutorily defined circumstances. Civil servants are not permitted to participate in work-related actions such as strikes, but are permitted to join labor unions. Although Deutsche Telekom is authorized pursuant to the law governing the privatization of Deutsche Telekom to exercise generally the rights and duties of the Federal Republic as the employer of civil servants, the Federal Agency has a right of consultation in the implementation of certain aspects of the terms under which Deutsche Telekom employs civil servants.

Civil servants employed by Deutsche Telekom are entitled to pension benefits provided by the German Government pursuant to the German Civil Servant Pension Act (*Beamtenversorgungsgesetz*). Pursuant to the law governing the privatization of Deutsche Telekom, Deutsche Telekom is required to make annual contributions to a special pension fund established to fund such pension obligations. From 1995 through 1999, Deutsche Telekom was obligated to make annual contributions of EUR 1.5 billion to this fund. Beginning in 2000, Deutsche Telekom is obligated to make annual contributions equal to 33 percent of the gross salaries of its then-current civil servant employees (including the imputed salaries of civil servant employees on unpaid leave), which are expected to be significantly lower than the annual contribution that was required from 1995 through 1999. Any shortfalls in the funding of the civil servant pension obligations must be borne by the Federal Republic.

### ***Non-Civil Servants***

As of December 31, 1999, approximately 58.7 percent of Deutsche Telekom's employees (excluding subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995) were non-civil servants. In addition to being covered by collective bargaining agreements, the non-civil servant employees are in general covered by the German Termination Protection Act (*Kündigungsschutzgesetz*), which imposes various restrictions on the involuntary termination of employment.

The vast majority of Deutsche Telekom's non-civil servant employees are organized in unions, principally the German Postal Workers' Union (*Deutsche Postgewerkschaft*). The terms and conditions of employment and salary increases for these non-civil servant employees are negotiated between Deutsche Telekom and the unions. Pursuant to the law governing the privatization of Deutsche Telekom, the Federal Agency is responsible for concluding collective bargaining agreements relating to certain statutorily defined non-wage benefits, rules of conduct and other general terms of employment. Such agreements only become effective with the consent of Deutsche Telekom. See "Control of Registrant—Coordination and Administrative Responsibilities of the Federal Agency". Collective bargaining agreements between Deutsche Telekom and unions relating to remuneration typically have a term of one year.

The collective bargaining agreement currently in effect had a term of fifteen months, running through March 31, 2000. Negotiations for a new collective bargaining agreement began on March 31, 2000, and the previous collective bargaining agreement remains effective until a new agreement has been reached. According to the currently effective collective bargaining agreement, the salaries for non-civil servants were raised by 3.1 percent starting April 1, 1999. For the period from January 1, 1999 to March 31, 1999, the non-civil servants received a one-time payment of EUR 153.00. The collective bargaining agreement for 1998 had a term of one

year, running from January 1, 1998 until December 31, 1998. This agreement provided for a raise of 1.5 percent for salaries of non-civil servants. For further information on the effects of these collective bargaining agreements on Deutsche Telekom's personnel expenses, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Total Operating Costs and Expenses—Personnel Costs".

### ***Employee Relations***

Works councils (*Betriebsräte*), whose members are elected by the employees, represent the interests of the employees vis-à-vis the employer in accordance with the Works Council Act of 1972 (*Betriebsverfassungsgesetz*). Works councils are established locally, as well as at the level of Deutsche Telekom AG and at the group level. Works councils must be notified in advance of, and have the right to comment on, proposed employee terminations, relocations and other matters, and have codetermination rights in respect of certain social matters, including work schedules and rules of conduct.

Deutsche Telekom believes that its relations with the works council and the unions are good. Constructive relations with its employees and their representatives are of central importance to Deutsche Telekom.

### ***Workforce Reduction Program***

The workforce reduction program begun by Deutsche Telekom in 1995 was continued in 1999. In comparison with the workforce level at the end of 1998, the number of employees of Deutsche Telekom – excluding subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995 – had decreased by some 6,900 by December 31, 1999. The workforce reductions, which are necessary to maintain the company's competitiveness, are taking place by means of normal attrition, severance packages, tide-over allowances, part-time work for older employees, financing assistance for civil servants giving up their status and leaving the company, and early retirement programs. A group-wide redeployment strategy is helping to ensure that the personnel requirements of all regions and specialization areas can be met. Pursuant to an agreement signed with the trade unions in January 2000, there will be no dismissals due to rationalization before the end of the year 2004.

Deutsche Telekom's medium-term goal of reducing its workforce (excluding the workforce of subsidiaries first consolidated after January 1, 1995) to about 170,000 by the end of the year 2000 without involuntary layoffs – a reduction of 60,000 from the 1994 level – will be fulfilled on schedule. Deutsche Telekom expects that, before the effects of acquisitions that may be made in coming years, workforce levels will continue to decline in the coming years. Additional workforce reduction initiatives could result in restructuring charges or expenses.

Workforce productivity measured in terms of revenue per employees, improved in 1999. The workforce reductions have cut Deutsche Telekom's personnel costs. In 1999, these costs amounted to EUR 9.2 billion, which represented an increase of 0.4 percent compared to 1998. Revenue per employee – based on the 1995 composition of the consolidated group – increased by 2.2 percent to EUR 186,156 per employee in 1999.

### **Recent Developments: Debis Transaction**

On March 27, 2000, Deutsche Telekom and DaimlerChrysler Services AG announced an agreement to form a strategic joint venture in the systems solutions field through the proposed acquisition by Deutsche Telekom of a 50.1% interest in debis Systemhaus GmbH by means of a capital increase. Under the arrangements, Deutsche Telekom is to invest approximately EUR 5.3 billion in debis Systemhaus for the new shares, and is to assume day-to-day management control over debis Systemhaus. Deutsche Telekom has agreed that there will be a minimum annual dividend rising to up to EUR 70 million paid on the DaimlerChrysler Services AG interest in debis Systemhaus in respect of each financial year through 2004. The transaction is subject to a number of conditions, including approval by DaimlerChrysler Services AG's supervisory board and requisite antitrust clearances. Accordingly, Deutsche Telekom cannot guarantee that it will be consummated.

debis Systemhaus is one of Europe's largest systems solutions companies. It produces software for corporate communications systems and develops the infrastructure needed for communications among computers. The strategic engagement is expected to strengthen Deutsche Telekom's systems solutions business—which is one of the four pillars of its growth strategy—and provide Deutsche Telekom with access to debis Systemhaus' global data network. According to public statements made by DaimlerChrysler, for 1999, debis Systemhaus had revenues of approximately EUR 2.9 billion.

The agreements relating to the joint venture confer on Deutsche Telekom the right to acquire from DaimlerChrysler Services AG, and on DaimlerChrysler Services AG the right to sell to Deutsche Telekom, the entire 49.9% interest of DaimlerChrysler Services AG in debis Systemhaus. The right in favor of Deutsche Telekom is exercisable from January 1, 2002 through January 1, 2005, with the commencement of the exercise period subject to a delay of up to two years at the option of DaimlerChrysler Services AG. The right in favor of DaimlerChrysler Services AG is exercisable from the joint venture closing through January 1, 2005. The price for the purchase for the 49.9% interest would be between approximately EUR 5.4 billion and EUR 5.7 billion, depending on when the option is exercised, and is subject to upward or downward adjustment on the basis of number of factors. The exercise of either option would give Deutsche Telekom full ownership of debis Systemhaus at the option exercise price, including full ownership of the then value in debis Systemhaus derived from Deutsche Telekom's initial approximate EUR 5.3 billion investment.

## **Competition**

The service which contributes a majority of Deutsche Telekom's consolidated revenues – domestic and international public fixed-line voice telephony – was opened to full competition on January 1, 1998. This market opening was the final step in a multi-step liberalization process that formally commenced in 1989. The size and affluence of the German telecommunications market and a decidedly pro-competitive telecommunications regulatory environment have combined to make Germany one of the world's most open and competitive telecommunications markets.

### ***Network Communications***

Until January 1, 1998, Deutsche Telekom had a legal monopoly on the provision of domestic and international public fixed-line voice telephony service in Germany. Even before 1998, however, Deutsche Telekom faced a limited measure of indirect competition in its domestic fixed-line voice telephony business from providers of voice services through corporate networks and closed-user groups, resellers and mobile service providers. In its international public fixed-line voice telephony business, Deutsche Telekom faced a significant amount of indirect competition from calling cards and call back services, particularly with respect to traffic to the United States and Canada. Deutsche Telekom also faced competition in this area from private networks connected through leased lines to public telephone networks outside Germany.

An important feature of the German telecommunications regulatory structure is that it essentially allows for an unlimited number of market entrants. During 1998 and 1999, many competitors crowded into Germany's fully liberalized fixed-line market. By the end of 1999, the Regulatory Authority had issued over 250 regional and nationwide licenses for voice telephony service. The licensees include providers of subscriber lines and local services (subscriber network operators) and providers of long-distance and international services (long-distance carriers). Competition in the markets for calls to mobile networks and regional calls is also intensifying.

The focus of competition in the fixed-line market was on long-distance and international calls. In this battle, which has been waged almost exclusively on the basis of price, Deutsche Telekom's competitors have been able to gain significant market share.

Telephone customers are free to choose service providers. They can do so either through call-by-call selection, which means selecting a carrier every time they make a long distance or international call, by dialing the carrier's prefix before the telephone number, or through preselection, which means selecting one long-distance carrier to handle all their long distance and international calls. Fixed terms for interconnection, which particularly favor competitors that have not invested in infrastructure, have enabled providers to profit from Deutsche Telekom's investments, at low prices, and to exploit them in designing their own products and services. In December 1999, the Regulatory Authority mandated reductions of up to 24 percent in interconnection rates, which are to be effective until January 31, 2000. As a result, Deutsche Telekom expects further price competition in the long-distance and international markets.

Among the international carriers holding a license for voice telephony services in Germany are MCI WorldCom and ACC. Some larger international carriers such as British Telecom have entered into joint ventures with German companies. Among the larger domestic competitors are Mannesmann Arcor and VIAG Interkom. Mannesmann Arcor is a consortium led by Mannesmann, which owns the Mannesmann Mobilfunk (D2) mobile telephony provider and has agreed to be acquired by Vodafone Airtouch. Mannesmann Arcor is investing in creating direct fixed-line access to customers and has its own backbone network (the former network of the German railway) and international holdings. In 1999, Mannesmann Arcor acquired the fixed-line network business of o.tel.o., which resulted in a considerable increase in the fixed-line network capacity and customer-base of Mannesmann Arcor. VIAG Interkom is a joint venture among VIAG, British Telecom and Telenor. It offers fixed-network services to business and residential customers. Through its E2 business area, which commenced operations at the end of 1998, it participates in the mobile telephony market.



The consolidation of telecommunications carriers, such as the proposed acquisition of Sprint Corporation by MCI WorldCom and the proposed acquisition of Mannesmann by Vodafone Airtouch, and the creation of new alliances, such as the new joint venture between AT&T and British Telecom, captured widespread public attention in 1999 and will likely have a noticeable effect on the competitive environment. Size alone was not determinative of success in 1999, however, as some aggressive smaller carriers, such as Mobilcom and TelDaFax, succeeded in capturing market shares in Germany greatly disproportionate to the relative sizes of their balance sheets. Some smaller German carriers, such as NetCologne, focused on building urban or regional networks from which to offer both local and long distance services. At present, local network operators, including NetCologne, compete against Deutsche Telekom in more than 24 major cities in Germany. Deutsche Telekom expects the voice telephony market in Germany to undergo consolidation in the medium term, but also expects that in the short term there will continue to be new entrants in the market.

Although Deutsche Telekom did not face significant competition in the access and local calling markets in 1999, competition in those markets is expected to increase. Various competitors have announced plans for offering local call service using unbundled local loop access, wireless local loop access and access via powerlines. The Regulatory Authority auctioned licenses for wireless local loop services in the summer of 1999. In addition, regulatory inquiries regarding the possibility of requiring further unbundling of local loop access to the local loop are in progress at the European Union level. For further information on these developments, see "Regulation—Special Network Access and Interconnection—Local Loop Access". As a result of these developments, Deutsche Telekom expects that substantial competition in the local loop will develop.

Deutsche Telekom's decision to divide its broadband cable business into nine regional companies and to seek investors to assume majority control and operating control over those companies may in time lead to additional competition from parties seeking to provide telecommunications services, including access services, and multimedia services through a broadband cable network. See "Business—Broadband Cable/Broadcasting".

Deutsche Telekom believes that its technologically advanced network, broad and sophisticated product and service line, nationwide reach and commitment to customer service, taken together with its new tariff structures, position it well to compete effectively in the fixed-line telecommunications market. Competition is expected to continue to be intense, however.

### ***Data Communications and Information and Communications Systems***

The field of data communications and information and communications systems has been open to competition in Germany since the beginning of 1990. Competition in the business, based on price, quality and service, is rigorous and pricing pressures are intense. Among Deutsche Telekom's major competitors in the data telecommunications business are Mannesman Arcor, WorldCom, Colt and VIAG Interkom. Businesses that have built local networks, such as NetCologne, are also increasingly competitive in data communications. In systems solutions, competitors of Deutsche Telekom include EDS, IBM and debis.

### ***Mobile Communications***

There are four mobile network operators in Germany. The two largest, T-Mobil (T-D1/T-C-Tel) and Mannesmann Mobilfunk (D2) have been locked in a battle for market leadership over the past several years, with D2 currently having a modest edge. Between them, T-Mobil and Mannesmann Mobilfunk command approximately 79.9 percent of the digital mobile telecommunications market in Germany, based on management estimates, with T-Mobil having an estimated share of 39 percent of this market as of December 31, 1999. E-Plus, the third mobile network operator, entered the market using the GSM 1800 standard in 1994, two years after T-D1 and D2 commenced operations, and held an estimated 16.3 percent of the market at year-end 1999. E2, the fourth network operator, commenced operations in late 1998 using the GSM 1800 standard and currently has an estimated market share of 3.9 percent.

In the retail market, in addition to competition from other network operators, T-Mobil faces significant competition from resellers. Competition in the German retail market for mobile telecommunications services

has generally been conducted on the basis of price, subscription options offered, offers of subsidized handsets, coverage and the quality of service. This competition has been intense. In the wholesale market, T-Mobil competes with other network operators to retain mobile traffic on its network.

T-Mobil signed a contract with VIAG Interkom in 1999 that allows calls from VIAG Interkom's E2 mobile service to be seamlessly transferred to the T-D1 mobile network. The contract has been approved by the Regulatory Authority.

Licenses for UMTS (Universal Mobile Telecommunications Systems), the next generation of mobile telecommunication, are to be auctioned by the beginning of 2000. Deutsche Telekom expects that mobile networks will carry an increasing share of data communications and intends to participate in these auctions when the proposed terms of the licenses are publicly announced. Deutsche Telekom's ability to keep up with developments in the European mobile telephony business may depend substantially on acquiring a license for UMTS. There is no guarantee that T-Mobil will be awarded a license for UMTS, although it intends to pursue one vigorously.

### ***Broadband Cable/Broadcasting***

Although Deutsche Telekom operates by far the largest cable network in Germany, it is subject to competition from a number of smaller cable companies and, more significantly, from the use of private satellite dishes. Increasing competition from digital terrestrial radio systems will also be possible. Under the Telecommunications Act, since 1996, competitors of Deutsche Telekom have been permitted to operate cable transmission lines in Germany. Deutsche Telekom has transferred the bulk of its cable business to a separate subsidiary and made plans to further divide the business into nine regional companies by July 1, 2000, and Deutsche Telekom is negotiating with investors for the business on a regional level, as described above under the heading "Business—Broadcasting/Broadband Cable." Deutsche Telekom intends to retain a minority interest in those regional companies for which investors are obtained.

### ***Terminal Equipment***

The telecommunications equipment sector in Germany has been open to full competition since 1990 and is characterized by falling prices, low margins, rapid technological innovation and intense competition. Deutsche Telekom does not manufacture telecommunications equipment, but rather resells and leases equipment manufactured by other companies under the Deutsche Telekom brand name. As a result, Deutsche Telekom often competes in the market against the products of its equipment suppliers.

### ***Value-Added Services***

Deutsche Telekom encounters competition from a variety of sources in the area of value-added services. There is significant substitution effect in the public telephone market as mobile telephony becomes more popular. Further, Deutsche Telekom faces competition from new coin and card-operated public phones supplied by other operators. In the area of toll-free and other service numbers, competitors such as Mannesmann Arcor and Talkline have been gaining market share. Directory assistance service has become very competitive, with Telegate, Talkline, Mannesmann Arcor, o.tel.o and DTV pursuing business, and Deutsche Telekom has lost market share as a result of this competition.

### ***T-Online***

T-Online encounters competition from numerous market entrants, including units of its largest German voice telephony competitors and the world's largest online services provider, AOL/Compuserve. Competition is conducted primarily on the basis of quality (content), service and price. For information on a recent judicial proceeding relating to the prices charged by T-Online, see "Business—Legal Proceedings". T-Online has begun to extend its reach internationally, where it will face a broad group of competitors.

### ***International***

Deutsche Telekom and its subsidiaries and affiliates compete with major international telecommunications companies and numerous local competitors in markets outside Germany.

With its sale of its interest in Global One, Deutsche Telekom plans to build up its own international services to meet the needs of multinational corporations using cross-border telecommunications services. This plan may be pursued through direct investment, acquisitions or cooperative arrangements with other carriers. For a transitional period, Deutsche Telekom may continue to offer Global One services. Competition for the business of multinationals is intense, with resultant pressures on pricing.

In the United Kingdom, Deutsche Telekom's One 2 One subsidiary is the fourth largest mobile telephony service provider and encounters strong competition. Similarly, in Austria, where max.mobil is the second largest mobile service provider, competition is rigorous.

In Hungary, MATÁV faces competition in a number of its business activities, including its mobile operations. In its largest activity, fixed-line voice telephony services, MATÁV has a monopoly on long-distance and international calls until December 2001. MATÁV has, however, publicly indicated that it would be prepared to relinquish its monopoly rights ahead of schedule if the new Hungarian regulatory framework is ready.

## **ITEM 2—DESCRIPTION OF PROPERTY**

As of December 31, 1999, Deutsche Telekom's property, plant and equipment had a total book value of EUR 59.0 billion. See note 13 to the consolidated financial statements.

Approximately 95 percent of the real estate portfolio of the Deutsche Telekom group relates to Deutsche Telekom AG. The real estate portfolio of Deutsche Telekom AG consists on an unconsolidated basis of about 12,000 properties with an aggregate book value at December 31, 1999 of EUR 16.3 billion. The total area of these properties amounts to approximately 64.1 million square meters, of which approximately 54.7 million square meters are developed and approximately 9.4 million square meters are undeveloped. Substantially all of these properties are used for telecommunications installations, research centers, service outlets, computer centers and offices. In 1995, Deutsche Telekom AG formed DeTe Immobilien (Deutsche Telekom Immobilien und Service GmbH) to manage its real estate portfolio professionally.

Due to the consolidation of various operations, the conversion to digital exchanges completed in December 1997 and ongoing staff reductions, Deutsche Telekom AG anticipates that a portion of its owned and leased properties will not be required in its core business in the future. Starting in 1997, Deutsche Telekom AG began identifying surplus properties and began to sell or rent these properties. For a further discussion of Deutsche Telekom's real estate portfolio, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Dynamics Affecting Deutsche Telekom's Business—Real Estate".

The headquarters of Deutsche Telekom is located in a leased building in Bonn. Deutsche Telekom also leases a number of other buildings.

In addition to its real estate portfolio, Deutsche Telekom owns numerous telecommunications installations throughout Germany, including exchanges of various sizes, transmission equipment, computer installations, cable networks, base stations for cellular networks and equipment for television and radio broadcasting. The aggregate book value of Deutsche Telekom's technical equipment and machinery at December 31, 1999 was EUR 38.2 billion.

### ITEM 3—LEGAL PROCEEDINGS

Deutsche Telekom and its subsidiaries are involved in a number of legal proceedings in the ordinary course of their business. In addition, proceedings involving alleged abuse of a market-dominating position by Deutsche Telekom and alleged antitrust violations are pending before competition and regulatory authorities.

On May 17, 1999, France Telecom commenced three arbitration proceedings with the International Court of Arbitration of the International Chamber of Commerce alleging that, by negotiating and entering into the combination agreement with Telecom Italia, Deutsche Telekom breached the cooperation agreement and the two cross-shareholding agreements between Deutsche Telekom and France Telecom. France Telecom is seeking to terminate these agreements and to recover damages from Deutsche Telekom, based on France Telecom's 1996 withdrawal from the German market and on missed opportunity costs, including the savings that allegedly would have resulted from the cooperation between Deutsche Telekom and France Telecom. In documents filed in the arbitration proceedings, France Telecom estimates that these damages amount to between EUR 3.5 billion and EUR 19 billion. Deutsche Telekom has denied the claims of France Telecom and filed substantial counterclaims for damages that currently are not fully specified but that are estimated by Deutsche Telekom at not less than EUR 6 billion. Deutsche Telekom estimates that these proceedings will last for approximately 12 months.

In addition, Enel S.p.A, France Telecom and Wind Telecomunicazioni S.p.A commenced arbitration proceedings during 1999 under the Rules of Arbitration of the International Chamber of Commerce based upon Deutsche Telekom's merger discussions with Telecom Italia. Enel is seeking damages in an amount not fully specified but estimated by Enel to be at least EUR 900 million, while Wind is seeking damages in an amount not fully specified but estimated by Wind at approximately EUR 265 million. Enel is also seeking a determination that it is entitled to exercise a call option on the shares in Wind that are held by DT-FT Italian Holding GmbH, a 50/50 joint venture of Deutsche Telekom and France Telecom, at a price equal to 90 percent of their fair market value. Deutsche Telekom has denied these claims and has filed substantial counterclaims against France Telecom, Enel and Wind. Deutsche Telekom anticipates that these arbitral proceedings will last for approximately two years.

Compagnie Générale des Communications S.A., a wholly-owned subsidiary of France Telecom, has filed a complaint against Deutsche Telekom with the District Court (*Landgericht*) in Bonn, seeking to require Deutsche Telekom to sell its interest in DT-FT Italian Holding GmbH for a price equal to the fair value of the shares. Deutsche Telekom currently expects that a decision in this matter will not be reached for four to five years.

On October 21, 1999, T-Mobil commenced arbitration proceedings in Vienna, Austria, against Elektrim S.A. and certain small shareholders of PTC. T-Mobil's claim alleges that these companies wrongfully failed to recognize Deutsche Telekom's rights of first refusal over approximately three percent of PTC, and that this failure was a material breach of the PTC shareholders' agreement. These companies have denied T-Mobil's claim, and Elektrim has filed a counterclaim against T-Mobil alleging that T-Mobil materially breached the shareholders' agreement by, among other things, attempting to purchase PTC shares from several small shareholders and obstructing Elektrim's purchase of PTC shares. T-Mobil intends to deny the allegations made in the counterclaim. A finding by the arbitration panel that a party has materially breached the PTC shareholder agreement would give the non-defaulting party the right to acquire the defaulting party's PTC shares at book value, which would be substantially below their current fair market value. Deutsche Telekom estimates that these proceedings will last for around 12 to 18 months.

The Regulatory Authority issued an order in December 1999 that establishes the rates that will apply to voice telephony interconnection services provided by Deutsche Telekom between January 1, 2000 and January 31, 2001. For further information on this decision, see "Description of Business—Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection." Because the decision of the Regulatory Authority in this matter was based on an international benchmark rather than on the cost information submitted by Deutsche Telekom, Deutsche Telekom filed a complaint against this order with the Cologne Administrative Court in January 2000.

In response to complaints from prospective voice telephony competitors of Deutsche Telekom, in July 1997, the Post Ministry required Deutsche Telekom to allow the complainants unbundled access to end customer lines (the “local loop”) within Deutsche Telekom's network for purposes of connecting their own customers. See “Regulation—Special Network Access and Interconnection—Local Loop Access”. A motion for an injunction against this order was rejected by the Cologne Administrative Court (*Verwaltungsgericht Köln*). In a hearing before the Appellate Administrative Court in Münster (*Oberverwaltungsgericht Münster*) in September 1997, an agreement was reached substantially on the basis of the Post Ministry's requirements, pursuant to which Deutsche Telekom now offers unbundled access to competitors. This agreement remains subject to the outcome of the litigation. Two administrative courts have dismissed Deutsche Telekom's challenge to this order, and Deutsche Telekom has appealed the issue to the Federal Administrative Court in Berlin.

The Regulatory Authority issued an order on March 9, 1998, rejecting in part an application by Deutsche Telekom for the approval of charges for access to the local loop. The Regulatory Authority rejected Deutsche Telekom's cost calculations based on a purported lack of transparency in the calculations and the evaluation of the cost factors and prescribed lower charges (DM 20.65 plus VAT) than those Deutsche Telekom had sought. See “Description of Business—Regulation—Special Network Access and Interconnection—Local Loop Access”. Deutsche Telekom filed a legal challenge to this order with the Cologne Administrative Court. The Regulatory Authority recently reset the charge for the monthly rate at DM 25.40 plus VAT. Deutsche Telekom and certain competitors filed complaints against this order with the Cologne Administrative Court in March 1999. A decision by that court that is adverse to Deutsche Telekom would be likely to have the effect of increasing competition in the local access market. Deutsche Telekom also has appealed to the administrative courts decisions of the Regulatory Authority regarding the technical point in Deutsche Telekom's network at which competitors must be allowed access to the local loop.

The Regulatory Authority issued an order on October 27, 1999 requiring Deutsche Telekom to pay fees of approximately DM 386 million for the use of telephone numbers that were assigned to Deutsche Telekom prior to the liberalization of the market for public fixed-network voice telephony services on January 1, 1998. The order is based on the Telecommunications Numbers Fees Ordinance. The amount that Deutsche Telekom was required to pay was calculated on an estimate by the Regulatory Authority that is subject to revision when Deutsche Telekom supplies the Regulatory Authority with required information regarding the telephone numbers assigned to Deutsche Telekom prior to January 1, 1998. Deutsche Telekom has paid the required fee but filed a complaint against the order of the Regulatory Authority with the Cologne Administrative Court in November 1999.

On March 17, 1999, Mannesmann Arcor filed a complaint with the European Commission against the Federal Republic of Germany and against Deutsche Telekom. The complaint primarily relates to Deutsche Telekom's prices for unbundled access to the local loop, which were set by the Regulatory Authority in early 1999. According to Mannesmann Arcor, Deutsche Telekom's low retail prices for local calls and for subscriber lines combined with its high prices for interconnection and for unbundled access to the local loop do not allow competitors to provide customer services economically. With regard to the Federal Republic of Germany, Mannesmann Arcor alleges that the German Economics Ministry exerted undue influence over the decision of the Regulatory Authority regarding local loop access. Furthermore, in Mannesmann Arcor's view, legal protection offered to applicants by German administrative courts, in the form of interim relief, for instance, would not be efficient. Other competitors have jointly filed two further complaints to the European Commission containing similar reproaches. In addition, Telepassport and Viatel have filed complaints alleging that Deutsche Telekom has abused a dominant position by charging long distance off-peak prices that are lower than applicable interconnection tariffs. Deutsche Telekom believes that the complaints are without merit and has submitted replies to the European Commission.

T-Online announced a plan to introduce new Internet charges as of April 1, 1999. AOL Bertelsmann filed a complaint concerning the new charges with the European Commission on February 15, 1999. The complaint alleges the abuse by Deutsche Telekom of its dominant position on the telephony market with regard to the Internet business (in particular, the bundling of Deutsche Telekom's local telephone charges with T-Online's Internet access charges and the use by T-Online of Deutsche Telekom's billing systems). AOL Bertelsmann has

also filed a complaint with the German Regulatory Authority based on essentially the same allegations. On April 16, 1999, the Regulatory Authority opened a proceeding to regulate the prices for Internet access via online service. In its decision of August 16, 1999 the Regulatory Authority held that the prices for Internet access via online service to be non-abusive concerning Deutsche Telekom's alleged dominant position on the telephony market. The decision was based on a benchmark study, not on cost calculations by Deutsche Telekom. Several competitors of Deutsche Telekom filed complaints against this order with the Cologne Administrative Court. The Cologne Administrative Court issued two interim injunctions, obligating the Regulatory Authority to reopen the proceedings in respect to prices for Internet access via online service and to base its decision on Deutsche Telekom's cost calculations. Deutsche Telekom, the Regulatory Authority and two competitors (media ways GmbH and Interactive Networks GmbH) have appealed this decision. A decision by the Appellate Administrative Court in Münster on the admissibility of the appeals against the interim injunctions is pending. Deutsche Telekom believes that this appeal is likely to be admitted.

AOL Bertelsmann also brought three preliminary injunction proceedings against T-Online and Deutsche Telekom before the Hamburg District Court (*Landgericht Hamburg*) claiming that T-Online had engaged in anti-competitive practices.

In the first proceeding, AOL Bertelsmann requested that the court prohibit T-Online from offering solely "bundled" products (i.e., products that offer a single rate that includes telephone access rates and Internet access rates). Although Hamburg District Court ruled in favor of AOL Bertelsmann, the Hamburg Court of Appeals (*Oberlandesgericht Hamburg*) reversed the decision on appeal by T-Online. However, because this decision only relates to the preliminary injunction proceedings, it can not be predicted whether AOL will be able to initiate a regular proceeding against bundled products. In addition, the preliminary injunction proceeding against Deutsche Telekom is still pending.

In the second proceeding, AOL Bertelsmann argued that T-Online and Deutsche Telekom engaged in an anticompetitive practice by offering bundled products that included telephone connection rates that were lower than those available to AOL Bertelsmann's customers at that time. The Hamburg District Court dismissed AOL Bertelsmann's claim in this regard, and this decision was upheld on appeal. Again, because this decision only relates to the preliminary injunction proceedings, it can not be predicted whether AOL will be able to initiate a regular proceeding in this matter.

In the third proceeding, AOL Bertelsmann again argued that T-Online engaged in an anti-competitive practice by bundling its "By-Call" Internet access charge with Deutsche Telekom's ISDN telephone access. The Hamburg District Court decided this claim in favor of AOL Bertelsmann, and T-Online appealed this decision. The proceeding is still pending. Since T-Online now also offers "By-Call" access together with analog telephone lines, T-Online's current operations are not likely to be significantly affected even if AOL Bertelsmann prevailed in this proceeding. In addition, AOL Bertelsmann has commenced principal proceedings in this matter.

On March 15, 2000, AOL Bertelsmann filed a complaint against T-Online with the German Federal Antitrust Authority (*Bundeskartellamt*) claiming that T-Online would engage in an anti-competitive practice by combining its "T-Online by call" tariff option with Deutsche Telekom ISDN access. In a letter dated March 27, 2000, the Federal Antitrust Authority requested T-Online to provide clarification concerning these allegations. Due to the fact this proceeding is at an incipient stage, the outcome can not be predicted.

On May 5, 1999, Mannesmann Mobilfunk filed a complaint with the European Commission alleging abuse by Deutsche Telekom of a dominant position on the fixed telephony retail market and on the market for termination services. According to the complaint, the alleged abuse consists of Deutsche Telekom's refusal to provide network services necessary for the implementation of Personal Communications Services similar to Deutsche Telekom's PCS. Deutsche Telekom believes that the complaint is without merit and has submitted a reply to the European Commission.

In early 1999, the U.S.-based operator Carrier 1 lodged a formal complaint with the U.S. Trade Representative against the Federal Republic alleging, among other things, that the Regulatory Authority failed to create a regulatory framework that guarantees competitors interconnection without unreasonable technical conditions on a timely basis and at cost-oriented prices. The complaint further alleges anti-competitive practices on the part of Deutsche Telekom (for example, delay in negotiating and implementing interconnection agreements). Deutsche Telekom believes the Carrier 1 complaint should be rejected on the merits. Deutsche Telekom believes that other carriers have also complained to U.S. authorities about interconnection in Germany on an informal basis. See “Description of Business—Regulation—International Obligations”.

In September 1998, Deutsche Post AG commenced an arbitration proceeding seeking contributions from Deutsche Telekom relating to the cost of employee housing for former Deutsche Bundespost employees, including a number of Deutsche Telekom employees. In 1995, responsibility for the housing of former employees of Deutsche Bundespost was assigned to Deutsche Post AG. The parties have different views as to the amount Deutsche Telekom is obliged to pay as cost reimbursement for the use of such employee housing for its employees. Deutsche Post AG currently is seeking payment in the amount of EUR 45.3 million from Deutsche Telekom, although Deutsche Telekom expects that Deutsche Post AG may claim further amounts in the event that its initial claim is successful. As of December 31, 1999, Deutsche Telekom reserved EUR 45.8 million in connection with this arbitration proceeding. To date, only an initial hearing has taken place. The outcome of the arbitration proceeding is uncertain.

German tax authorities have denied Deutsche Telekom's request for permission to recognize goodwill in its opening balance sheet of January 1, 1995 in the amount of EUR 13.1 billion and to depreciate that goodwill for tax purposes. In February 1999, Deutsche Telekom filed a complaint against this decision of the German tax authorities with the fiscal court of Cologne (*Finanzgericht Köln*). A judgment of this court of first instance is expected in 2000 - 2001. A decision adverse to Deutsche Telekom would not have an adverse impact on the financial position of Deutsche Telekom, since Deutsche Telekom has chosen not to recognize or depreciate this goodwill for tax purposes until it receives approval from the tax authorities or the courts. A decision favorable to Deutsche Telekom, however, would result in tax refunds for Deutsche Telekom.

In October 1996, British Telecommunications plc (“BT”) and VIAG Interkom GmbH & Co. KG (“VIAG”) filed a complaint with the District Court in Düsseldorf (*Landgericht Düsseldorf*) seeking a permanent injunction and damages on the basis that Deutsche Telekom and Atlas Germany had commenced offering and selling Global One telecommunications services before a condition to the entry into effect of the competition law exemptions granted to Atlas and Global One by the European Commission had been fully satisfied (specifically, the condition that two or more licenses for the build-out, ownership and/or control of alternative transmission lines for liberalized telecommunications services be in effect in each of Germany and France). The complaint also sought certain information from Deutsche Telekom. Although the request for a permanent injunction was settled in 1997, the parties appealed decisions of the lower courts regarding the claim for damages to the Federal Supreme Court in 1998. In August 1999, however, the plaintiffs withdrew their complaint.

In April 1998, a German consumer association filed a complaint with the District Court in Cologne (*Landgericht Köln*) challenging a clause used by Deutsche Telekom in its General Terms and Conditions for TV-cable service. Deutsche Telekom based its November 1997 price increase on the challenged clause. The case was dismissed by the court by judgement dated October 27, 1999.

#### **ITEM 4—CONTROL OF REGISTRANT**

##### **Shareholding**

The capital stock of Deutsche Telekom consists of ordinary shares with no par value. Prior to January 24, 2000, these shares were issued only in bearer form. On January 24, 2000, the shares were converted from bearer form to registered form.

Historically, Deutsche Telekom formed an integral and undifferentiated part of Deutsche Bundespost, a state-owned special asset (*Sondervermögen des Bundes*). In 1989, Deutsche Bundespost was divided into three distinct entities – Deutsche Bundespost TELEKOM, Deutsche Bundespost POSTBANK and Deutsche Bundespost POSTDIENST. Deutsche Bundespost TELEKOM was transformed, with effect from January 1, 1995, into Deutsche Telekom AG, a private law stock corporation, which continued to be wholly owned by the Federal Republic.

The Federal Republic's direct ownership interest in Deutsche Telekom is approximately 43 percent. KfW, a government-sponsored development bank that is 80 percent owned by the Federal Republic and 20 percent owned by German state governments, owns approximately 22 percent. The Federal Republic is therefore in indirect control of the shares owned by KfW.

As long as the Federal Republic directly or indirectly controls the majority of Deutsche Telekom's shares, it will, like any majority shareholder in a German stock corporation, have the power to control most decisions taken at shareholders' meetings, including the appointment of all of the members of the Supervisory Board elected by the shareholders and the approval of proposed dividend payments.

Provisions of German law that inhibited the ability of the Federal Republic and KfW to sell shares of Deutsche Telekom ceased to apply as of January 1, 2000. The Federal Republic and KfW have agreed with Deutsche Telekom not to sell their shares before June 2000. KfW has indicated that it plans to dispose of a portion of its Deutsche Telekom shares in the capital markets. Deutsche Telekom intends, if requested, to consent to this disposition.

The Federal Republic administers its shareholding and exercises its rights as a shareholder of Deutsche Telekom through the Federal Agency for Postal Affairs and Telecommunications Deutsche Bundespost (the “Federal Agency”), which is subject to the supervision of the Finance Ministry. Except as described below, in its capacity as shareholder, the Federal Republic may exercise only those rights that it has under the German Stock Corporation Act and Deutsche Telekom's Articles of Incorporation.

For as long as the Federal Republic holds, directly or indirectly, a majority of Deutsche Telekom's voting share capital, it is entitled, under the Law on Budgetary Principles (*Haushaltsgrundsätze-gesetz*), to require Deutsche Telekom to instruct its independent auditors to extend the scope of their audit of Deutsche Telekom and its subsidiaries to cover their management and certain other matters. The Federal Republic is entitled to receive copies of audit reports upon request. In addition, the Federal Audit Office (*Bundesrechnungshof*) reviews the activities of the Federal Republic regarding enterprises in which it holds interests. For as long as the Federal Republic is, directly or indirectly, the majority shareholder of Deutsche Telekom, the Federal Audit Office has the right to investigate questions arising from its review, including by inspecting Deutsche Telekom's operations as well as books and accounts. Similar rights apply with respect to those subsidiaries of Deutsche Telekom that so provide in their articles of incorporation. In reporting to the Federal Republic, Supervisory Board members who are elected on the initiative of the Federal Republic are not generally subject to usual secrecy obligations applicable to Supervisory Board members; the Federal Republic must, however, maintain the secrecy of confidential information contained in these reports.

Furthermore, as is generally the case with other German corporations with a controlling shareholder, for as long as the Federal Republic is a shareholder with controlling influence (*beherrschender Einfluß*), Deutsche Telekom's Board of Management is required to produce a report (*Abhängigkeitsbericht*) setting forth the relationships and the transactions entered into between Deutsche Telekom, on the one hand, and the Federal Republic or its affiliated enterprises, on the other hand. This related-party report, which is intended to protect minority shareholders and creditors, must include a declaration by the Board of Management as to the fairness of transactions and dealings with the Federal Republic. Deutsche Telekom's independent auditors are required to confirm the accuracy of this report. The Supervisory Board is then required to review the related-party report and the auditor's findings thereon and to inform the shareholders as to the conclusion of both. In the 1999 related-party report, Deutsche Telekom's Board of Management declared that under the circumstances known to the Board of Management, at the time of performing the business transactions between Deutsche Telekom and



the Federal Republic and its affiliated enterprises, including the Federal Agency, Deutsche Telekom received appropriate remuneration for these transactions, and that Deutsche Telekom did not perform or omit any actions on behalf of or on the instructions of the controlling shareholder, in its capacity as such, or any other affiliated companies. Deutsche Telekom's independent auditors have confirmed the accuracy of the 1999 related-party report regarding relationships between Deutsche Telekom and its controlling shareholder.

Pursuant to the Articles of Association (*Satzung*) of DeTeMobil, Deutsche Telekom's mobile communications subsidiary ("T-Mobil"), and of DeTeSystem, Deutsche Telekom's systems solutions subsidiary, the Finance Ministry has the right to nominate one member to the supervisory board of each of these subsidiaries. In addition, any amendments to the Articles of Association of DeTeSystem require the consent of the Finance Ministry.

### **Coordination and Administrative Responsibilities of the Federal Agency**

Pursuant to applicable law, the Federal Agency provides certain services to Deutsche Telekom, Deutsche Postbank and Deutsche Post and has certain rights and responsibilities with respect to the administration of the common affairs of these companies. For example, the Federal Agency is responsible for concluding on behalf of these entities general collective bargaining agreements (*Manteltarifverträge*) with employees relating only to certain non-wage benefits, rules of conduct and other general terms of employment. These agreements only become effective with the consent of the affected entity. The Federal Agency's right to conclude these agreements does not affect Deutsche Telekom's right to negotiate particular terms of employment, including wages, salaries and conditions of employment, on its own behalf. The Federal Agency also administers the health insurance fund for civil servants (*Postbeamtenkrankenkasse*), the pension fund for non-civil servants (VAP) and the health insurance fund for non-civil servants (*Bundespost-Betriebskrankenkasse*), employed by Deutsche Telekom, Deutsche Postbank and Deutsche Post. The Federal Agency has certain additional responsibilities with respect to civil servants employed by Deutsche Telekom, Deutsche Post and Deutsche Postbank. The Federal Agency has the right to provide advice concerning the coordination of the activities of Deutsche Telekom, Deutsche Postbank and Deutsche Post, particularly, with respect to their public image, issues that may arise if the business plans of these entities conflict and, upon request, with respect to certain personnel issues.

Services provided by the Federal Agency pursuant to applicable law are rendered on the basis of service agreements between Deutsche Telekom, Deutsche Postbank and Deutsche Post, on the one hand, and the Federal Agency, on the other. Since applicable law currently requires that each of Deutsche Telekom, Deutsche Postbank and Deutsche Post enter into a service agreement with the Federal Agency covering the services described above, Deutsche Telekom has not considered entering into arrangements with third parties for the provision of these services. Costs of the Federal Agency incurred in connection with providing these services are financed out of fees agreed upon with Deutsche Telekom, Deutsche Post and Deutsche Postbank. Deutsche Telekom incurred costs of EUR 75 million for these services in 1999 (as compared to EUR 89 million in 1998).

Until 1997, the total costs of the Federal Agency, consisting mainly of personnel costs for its approximately 3,100 employees, had been divided among the three companies on a basis reflecting the number of employees of each of the companies. In 1997, this approach was replaced by a new distribution plan, which is based on actual expenses incurred using a new cost attribution system. The Federal Agency is statutorily required to observe the principles of economic efficiency and expense minimization. The Federal Agency drafts budgets on an annual basis and prepares an annual report which is audited by its independent auditors. The independent auditors' review includes a review of the orderly management and significant economic relationships of the Federal Agency. The budget and the annual report are subject to adoption by an administrative board (*Verwaltungsrat*), which consists of representatives of the German Government, of Deutsche Post, Deutsche Postbank and Deutsche Telekom and of the employees of each of these entities. After adoption by the administrative board, the budget and the annual report are submitted to the Finance Ministry for approval. The fiscal and budgetary management of the Federal Agency is subject to continuous supervision by the Federal Audit Office pursuant to the German Budget Ordinance (*Bundshaushaltsordnung*).

### **Federal Republic as Regulator**

The Federal Republic's role as regulator is independent and distinct from its role as shareholder. Until December 31, 1997, this regulatory function was exercised by the Post Ministry. Thereafter, the new Regulatory Authority, which is under the general supervision of the German Economics Ministry, took over this function. See “Description of Business—Regulation”.

### **Federal Republic as Customer**

The Federal Republic is Deutsche Telekom's largest customer and purchases services on an arm's-length basis. Deutsche Telekom deals with the various departments and agencies of the German Government as separate customers, and the provision of services to any one department or agency does not constitute a material part of Deutsche Telekom's revenues.

### **New Arrangement with Deutsche Post**

Deutsche Telekom announced plans in 1999 to negotiate and enter into a definitive agreement with Deutsche Post AG that will call for Deutsche Telekom to provide, among other things, information technology and corporate network services to Deutsche Post. In return, Deutsche Post will provide distribution and transportation, printing, warehousing and other services. The objective of the arrangement is to allow each company to focus on its core competencies and dispose of peripheral activities. Deutsche Telekom expects that this arrangement will result in a net transfer of around 2,000 Deutsche Telekom employees to Deutsche Post.

### **Federal Republic Guarantees**

Pursuant to applicable law, all liabilities of Deutsche Telekom outstanding as of January 2, 1995, the date of Deutsche Telekom's registration in the Commercial Register (*Handelsregister*), became guaranteed by the Federal Republic. This guarantee replaced the Federal Republic's obligations with respect to Deutsche Telekom's liabilities when it was a state-owned special asset. Liabilities incurred after January 2, 1995 are not guaranteed by the Federal Republic.

### **Pension Contributions for Civil Servants**

Civil servants (*Beamte*) employed by Deutsche Telekom are entitled to pension benefits provided by the Federal Republic. Pursuant to applicable law, Deutsche Telekom is required to make annual contributions to a special pension fund (*Unterstützungskasse*) established to fund these pension obligations. See “Management and Employees—Employees—Civil Servants” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Total Operating Costs and Expenses—Personnel Costs.”

## **ITEM 5—NATURE OF TRADING MARKET**

### **General**

The principal trading market for Deutsche Telekom's shares is the Frankfurt Stock Exchange. The shares also trade on the other German stock exchanges in Berlin, Bremen, Düsseldorf, Hamburg, Hannover, Munich and Stuttgart and on the Tokyo Stock Exchange. The shares are eligible for quotation and trading through the Stock Exchange Automated Quotation System of the London Stock Exchange. Options on the shares trade on the German options exchange (*Eurex Deutschland*) and other exchanges. Originally, Deutsche Telekom issued all its shares in bearer form. With effect from January 24, 2000, the shares were converted from bearer form to registered form.

American Depositary Shares (ADSs), each representing one Share, are listed on the New York Stock Exchange and trade under the symbol “DT”. The depositary for the ADSs is Citibank N.A. As of December 31,

1999, there were 24,443,834 ADSs outstanding, with 296 holders of record of ADSs with addresses in the United States and 38 holders of record of ADSs with addresses outside the United States. Approximately 8,978 ADSs were held of record by holders with non-U.S. addresses. Since Deutsche Telekom's shares were in bearer form in 1999, Deutsche Telekom does not have precise information regarding the percentage of its shares held by U.S. holders as of December 31, 1999. As of April 4, 2000, however, there were 1,707 holders of record of shares with addresses in the U.S., and Deutsche Telekom estimates that around 10 percent of its shares not represented by ADSs (excluding shares held by the Federal Republic and KfW) were held by investors in the United States on that date.

### Trading on the New York Stock Exchange

The table below sets forth, for the periods indicated, the high and low closing sales prices for the ADSs on the NYSE:

	<u>Price per ADS</u>	
	<u>High</u>	<u>Low</u>
	US \$	
1998		
First Quarter .....	22 <sup>7</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>16</sub>
Second Quarter .....	28 <sup>5</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>2</sub>
Third Quarter .....	32	24
Fourth Quarter.....	33 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>4</sub>
1999		
First Quarter .....	47 <sup>1</sup> / <sub>8</sub>	36 <sup>1</sup> / <sub>16</sub>
Second Quarter .....	45 <sup>7</sup> / <sub>8</sub>	36 <sup>1</sup> / <sub>4</sub>
Third Quarter .....	45 <sup>7</sup> / <sub>16</sub>	39 <sup>5</sup> / <sub>8</sub>
Fourth Quarter .....	71	40 <sup>3</sup> / <sub>4</sub>
2000		
First Quarter .....	98 <sup>5</sup> / <sub>8</sub>	63 <sup>1</sup> / <sub>16</sub>

On March 31, 2000, the closing sales price per ADS on the NYSE was US\$ 80 <sup>1</sup>/<sub>4</sub>.

### Trading on the Frankfurt Stock Exchange

Deutsche Börse AG operates the Frankfurt Stock Exchange, which is the most significant of the eight German stock exchanges. The Frankfurt Stock Exchange (including transactions through the Xetra system) accounted for approximately 80 percent of the turnover in exchange-traded shares in Germany in 1999. As of December 31, 1999, the shares of 3,265 companies traded on the official regulated and unregulated markets and the Neuer Markt Segment of the Frankfurt Stock Exchange. Of these, 711 were German companies and 2,554 were foreign companies.

Trading on the floor of the Frankfurt Stock Exchange begins every business day at 9:00 a.m. and ends at 5:30 p.m. (as of June 2, 2000: 8:00 p.m.), Central European Time. Securities listed on the Frankfurt Stock Exchange generally trade in the auction market, but also change hands in interbank dealer markets. Publicly commissioned stock brokers who are members of the Frankfurt Stock Exchange, but who do not as a rule deal with the public, note prices, which are determined by out-cry. The prices of actively traded securities, including the shares of large corporations, are continuously quoted during trading hours. For all securities, a fixed price (*Einheitspreis*) is established at approximately midday on each day the Frankfurt Stock Exchange is open for business.

On behalf of the Frankfurt Stock Exchange, the Chamber of Official Exchange Brokers of the Frankfurt Stock Exchange (*Kursmaklerkammer Frankfurt am Main*) publishes an official daily list of quotations

(*Amtliches Kursblatt*) containing the fixed prices (*Einheitskurse*) as well as the yearly high and low prices for all traded securities.

In November 1997, to improve the market quality of trading, Deutsche Börse replaced the IBIS trading system (*Integriertes Börsenhandels- und Informations-System*) with Xetra (*Exchange Electronic Trading*). The Xetra market model was developed in collaboration with market participants and essentially comprises rules for price determination, prioritization of orders and the provision of information for market participants.

Transactions on the Frankfurt Stock Exchange (including transactions through the Xetra system) settle on the second business day following the trade. Transactions off the Frankfurt Stock Exchange (such as, for example, large trades or transactions in which one of the parties is foreign) generally also settle on the second business day following the trade, although a different period may be agreed to by the parties. Under standard terms and conditions for securities transactions employed by German banks, customers' orders for listed securities must be executed on a stock exchange unless the customer gives specific instructions to the contrary.

The Frankfurt Stock Exchange can suspend a quotation if orderly trading is temporarily endangered or if a suspension is deemed to be necessary to protect the public.

The Federal Supervisory Authority for Securities Trading (*Bundesaufsichtsamt für den Wertpapierhandel*) monitors trading activities on the German stock exchanges.

From January 4, 1999, all shares on German stock exchanges have traded in euro.

The table below sets forth, for the periods indicated, the high and low closing sales prices for the shares of Deutsche Telekom on the Frankfurt Stock Exchange, as reported by the Frankfurt Stock Exchange IBIS / Xetra trading systems, together with the highs and lows of the DAX (*Deutscher Aktien-Index*).

	<u>Price Per Ordinary Share</u>		<u>Price Per Ordinary Share</u>		<u>DAX(1)</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
	Euro		DM			
1998						
First Quarter.....	-	-	41.65	31.19	5,114.13	4,134.64
Second Quarter.....	-	-	50.14	39.70	5,915.13	5,018.67
Third Quarter.....	-	-	55.61	44.90	6,171.43	4,433.87
Fourth Quarter.....	-	-	55.97	43.40	5,121.48	3,896.08
1999						
First Quarter.....	43.45	31.35	-	-	5,443.62	4,678.72
Second Quarter.....	44.55	34.23	-	-	5,468.67	4,914.59
Third Quarter.....	43.15	36.90	-	-	5,652.02	4,978.45
Fourth Quarter.....	71.50	38.11	-	-	6,958.14	5,124.55
2000						
First Quarter.....	103.50	61.00	-	-	8,064.97	6,474.92

(1) The DAX is a weighted performance index of the shares of thirty large German corporations. The calculation of the DAX did not change upon the introduction of the euro.

On March 31, 2000, the closing sales price per Deutsche Telekom share on the Frankfurt Stock Exchange was EUR 84.00, equivalent to DM 164.29 per share, translated at the exchange rate fixed on January 1, 1999, and US\$ 80.42 per share, translated at the Noon Buying Rate for March 31, 2000.

## ITEM 6—EXCHANGE CONTROLS AND OTHER LIMITATIONS AFFECTING SECURITY HOLDERS

At present, the Federal Republic does not restrict the movement of capital between Germany and other countries except investments in Iraq and Serbia and with institutions of the Taliban party in Afghanistan. This is to comply with the applicable resolutions adopted by the United Nations and the EU.

For statistical purposes, with certain exceptions, every corporation or individual residing in Germany is obligated to report any payment received from or made to a non-resident corporation or individual to the German Central Bank (*Deutsche Bundesbank*) if the payment exceeds DM 5,000 or EUR 2,500 (or the equivalent in a foreign currency). Additionally, corporations and individuals residing in Germany must report to the German Central Bank any claims of a resident corporation or individual against or liabilities payable to a non-resident corporation or individual exceeding an aggregate of DM 3 million or EUR 1.5 million (or the equivalent in a foreign currency) at the end of any calendar month.

Neither German law nor the Memorandum and Articles of Association (*Satzung*) of Deutsche Telekom restricts the right of non-resident or foreign owners of the shares to hold or vote the shares.

## ITEM 7—TAXATION

### German Taxation

The following is a brief summary of material German tax consequences for beneficial owners of shares or ADSs that are not German residents for German income tax purposes and do not hold shares or ADSs as part of a permanent establishment or a fixed base in Germany (“Non-German Holders”). This summary is based upon German law and typical tax and other treaties between Germany and other countries in effect as of the date hereof and is subject to changes in German law or such treaties. The following is not meant to be a comprehensive discussion of all of the German tax consequences which may be relevant for Non-German Holders. Prospective purchasers should consult their tax advisers regarding the German federal, state and local tax consequences of the purchase, ownership and disposition of shares and the procedures for the refund of German taxes withheld from dividends.

### *Dividends*

In general, German corporations are subject to corporate income tax at a rate of 40 percent on non-distributed profits and of 30 percent on distributed profits. The corporate income tax liability is subject to a 5.5 percent solidarity surcharge (*Solidaritätszuschlag*). This results in an effective aggregate charge of 31.65 percent on distributed profits. German resident taxpayers (including foreign investors that hold shares or ADSs as part of a permanent establishment or a fixed base in Germany) are entitled to a refundable tax credit in the amount of three-sevenths of the gross amount (before dividend withholding tax) of profits distributed, which credit also reduces the basis for the 5.5 percent surcharge on the German taxpayer's income tax liability. That credit or refund is not available to Non-German Holders.

In addition, a 25 percent withholding tax (plus a solidarity surcharge of 5.5 percent thereon resulting in withholding tax burden of 26.375 percent) is imposed on gross dividend distributions by a German corporation. With respect to a Non-German Holder, this rate may be reduced by a tax treaty applicable to such Non-German Holder. Under most tax treaties the withholding tax rate is reduced to 15 percent. The reduction is granted by way of a refund of the difference between the tax withheld at the statutory rate of 25 percent and the applicable treaty rate upon application to the German tax authorities (Bundesamt für Finanzen, Friedhofstrasse 1, 53225 Bonn, Germany). For Non-German Holders of ADSs entitled to the benefits of the income tax treaty between the United States and Germany (the “Treaty”) a special refund procedure may apply, as described below under the heading “—United States Taxation—Refund Procedures”.

Under the Treaty, provided the corporate tax imputation system continues to apply to individuals under German law, qualifying U.S. shareholders are entitled to an additional reduction in German tax equal to 5 percent of the gross amount of the dividend, which is refundable together with the general treaty refund discussed in the preceding paragraph. Special U.S. tax rules applicable to this additional refund are discussed below under “United States Taxation—Dividends”.

On February 9, 2000 the German Ministry of Finance published a draft tax reform bill. According to such draft bill, corporate income tax cuts would become effective in the year 2001. The German government plans to repeal the corporate tax imputation system which does not provide for a tax credit in favor of Non-German Holders. Instead, profits would be subject to tax separately at corporation and shareholder levels. At the corporation’s level the corporate income tax rate would be 25 percent (plus solidarity surcharge and local trade income tax). The German resident shareholder would pay income tax at his personal income tax rate on the amount of 50 percent of the gross distribution. Dividends received by German resident shareholders or Non-German Holders would be subject to withholding tax at a rate of 20 percent (plus solidarity surcharge of 5.5 percent resulting in an overall withholding tax burden of 21.1 percent).

### ***Capital Gains***

Under German domestic tax law, gain which Non-German Holders derive from the sale or other disposition of shares or ADSs is not subject to tax in Germany, provided the Non-German Holder has not held, directly or indirectly, 10 percent or more of the shares at any time during the 5-year period immediately preceding the disposition. This participation threshold will be reduced to 1 percent pursuant to the draft tax reform bill mentioned above. Most tax treaties concluded by Germany with other countries provide that Non-German Holders resident in the respective treaty state are not subject to German income tax on such capital gains.

### ***Inheritance and Gift Tax***

Under German law, German gift or inheritance tax will be imposed on transfers of shares or ADSs by gift or at death of a Non-German Holder only if (1) the donor or transferor, or the heir, donee or other beneficiary, was domiciled in Germany at the time of the transfer or, with respect to German citizens who are not domiciled in Germany, if such donor, transferor or beneficiary has not been continuously outside of Germany for a period of more than 5 years, or (2) the shares or ADSs subject to such transfer consist or form part of a portfolio of 10 percent or more of such shares or ADSs held directly or indirectly by the donor or transferor himself or together with one or more related persons. The few German estate tax treaties currently in force (e.g., the treaty with the United States) usually provide that German gift or inheritance tax may only be imposed if condition (1) above is met.

### ***Other Taxes***

No German transfer, stamp or other similar taxes apply to the purchase, sale or other disposition of shares or ADSs by Non-German Holders.

### **United States Taxation**

The following is a summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of shares and ADSs by a holder that is a resident of the United States for purposes of the income tax convention between the United States and Germany (the “Treaty”) and is fully eligible for benefits under the Treaty (a “U.S. holder”). The summary does not purport to be a comprehensive description of all of the tax considerations that may be relevant to any particular investor, including tax considerations, that arise from rules of general application or that are generally assumed to be known by investors. In particular, the summary does not deal with U.S. holders that purchase in the secondary market or holders that do not hold shares or ADSs as capital assets. The summary does not address the tax treatment of holders that are subject to special rules, such as banks, insurance companies, dealers in securities or currencies, persons holding property as part of an integrated investment (including a “straddle”) that includes one or more other positions, persons

that own, directly or indirectly, 10 per cent. or more of Deutsche Telekom's voting stock and holders whose "functional currency" is not the U.S. dollar. The summary is based on laws, treaties and regulatory interpretations in effect on the date hereof, all of which are subject to change.

Holders should consult their own advisers regarding the tax consequences of the acquisition, ownership and disposition of shares or ADSs in light of their particular circumstances, including the effect of any state, local, or other national laws.

The beneficial owner of a share or ADS generally will be entitled to Treaty benefits, and therefore will be a U.S. holder, if it is (1) an individual resident of the United States, a U.S. corporation, or a partnership, estate or trust to the extent its income is subject to taxation in the United States in its hands or in the hands of its partners or beneficiaries; (2) not also a resident of Germany for German tax purposes; and (3) not subject to an anti-treaty shopping article that applies in limited circumstances. The Treaty benefits discussed below generally are not available to U.S. taxpayers that hold shares or ADSs in connection with the conduct of business through a permanent establishment, or the performance of personal services through a fixed base, in Germany. This summary does not discuss the treatment of such holders.

In general, for U.S. federal income tax purposes and for purposes of the Treaty, beneficial owners of ADSs will be treated as the beneficial owners of the shares represented by those ADSs.

### ***Shares and ADSs***

#### *Dividends*

Dividends paid by German corporations generally are subject to German withholding tax at an aggregate rate of 26.375 percent (consisting of a 25 percent withholding tax and a 1.375 percent surcharge).

U.S. holders are entitled to claim a refund of a portion of these withholding taxes, and will be treated as receiving additional dividend income from Deutsche Telekom, under the mechanism described below. Under the Treaty, a U.S. holder will be entitled to receive a payment from the German tax authorities equal to 16.375 percent of the declared dividend. The Treaty provides that a portion of this payment (i.e., 11.375 percent of the declared dividend) will be treated for U.S. tax purposes as a reduction in German withholding tax to the generally applicable Treaty rate of 15 percent, and the remainder of the payment (i.e., 5 percent of the declared dividend) will be treated as the net amount of an additional dividend of 5.88 percent of the declared dividend that has been subject to a 15 percent German withholding tax. Accordingly, if Deutsche Telekom declares a dividend of 100, a U.S. holder initially will receive 73.625 (100 minus the 26.375 percent withholding tax). The U.S. holder then can claim a refund from the German authorities of 16.375 and thereby will receive total cash payment of 90 (i.e., 90 percent of the declared dividend). For U.S. tax purposes, the holder will be deemed to have received total dividends of 105.88, consisting of the declared dividend of 100, plus the deemed additional dividend of 5.88 that is associated with the Treaty refund.

If the German draft tax reform bill is enacted in its current form, dividends paid by German corporations will be subject to German withholding tax at an aggregate rate of 21.1 percent (20 percent withholding tax and a 1.1 percent surcharge) and the Treaty benefits discussed above will differ. Under the Treaty, the German withholding tax would still be reduced to 15 percent, but a U.S. holder would no longer be entitled to the deemed additional dividend of 5.88 percent. Accordingly, for a declared dividend of 100, a U.S. holder would initially receive 78.9 and could claim a refund from the German tax authorities of 6.1 and therefore receive a total cash payment of 85. For U.S. tax purposes, a U.S. holder will be deemed to have received total dividends of 100.

The gross amount of dividends received by a U.S. holder (including the additional dividend associated with the Treaty refund and amounts withheld in respect of German withholding tax) generally will be subject to U.S. federal income taxation as foreign source dividend income, and will not be eligible for the dividends received deduction generally allowed to U.S. corporations. German withholding tax at the 15 percent rate provided under the Treaty will be treated as a foreign income tax that, subject to generally applicable limitations under U.S. tax

law, is eligible for credit against a U.S. holder's U.S. federal income tax liability or, at the holder's election, may be deducted in computing taxable income. Thus, for a declared dividend of 100, under current German law, a U.S. holder would be deemed to have paid German taxes of 15.88, but if the German draft tax reform bill is enacted in its current form, a U.S. holder would be deemed to have paid German taxes of 15. For foreign tax credit purposes, dividends paid by Deutsche Telekom will be foreign source "passive income" or, in the case of certain U.S. holders, "financial services income". Foreign tax credits will not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions in securities or in respect of arrangements in which a U.S. holder's expected economic profit, after non-U.S. taxes, is insubstantial. U.S. holders should consult their own advisers concerning the implications of these rules in light of their particular circumstances.

Dividends paid in non-U.S. currency will be included in the income of a U.S. holder in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date of receipt by the holder or, in the case of ADSs, by the Depository, regardless of whether the payment is in fact converted into U.S. dollars. If dividends paid in foreign currency are converted into U.S. dollars on the date of receipt, holders generally should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. holder may be required to recognize domestic-source foreign currency gain or loss on the receipt of a refund in respect of German withholding tax (but not with respect to the portion of the Treaty refund that is treated as an additional dividend) to the extent the U.S. dollar value of the refund differs from the U.S. dollar equivalent of that amount on the date of receipt of the underlying dividend.

#### *Refund Procedures*

Pursuant to administrative procedures introduced on a trial basis, claims for refunds payable under the Treaty to U.S. holders must be submitted to the German tax authorities by the Depository collectively on behalf of all such U.S. holders. However, this procedure is not available for U.S. holders entitled to refunds in excess of DM 300 for the calendar year; such holders must file separate claims. Claims must be filed within four years of the end of the calendar year in which the dividend was received.

Details of the collective refund procedure are available from the Depository. Individual claims for refund are made on a special German form, which must be filed with the German tax authorities: Bundesamt für Finanzen, Friedhofstrasse 1, 53221 Bonn, Germany. Copies of the required form may be obtained from the German tax authorities at the same address or from the Embassy of the Federal Republic of Germany, 4645 Reservoir Road, N.W., Washington, D.C. 20007-1998.

As part of the individual refund claim, a U.S. holder must submit to the German tax authorities the original bank voucher (or certified copy thereof) issued by the paying entity documenting the tax withheld, and an official certification on IRS Form 6166 of its last filed United States federal income tax return. IRS Form 6166 may be obtained by filing a request with the Internal Revenue Service Center in Philadelphia, Pennsylvania, Foreign Certificate Request, P.O. Box 16347, Philadelphia, PA 19114-0447. Requests for certification must include the holder's name, Social Security number or Employer Identification number, tax return form number, and tax period for which the certification is requested. Requests for certification can include a request to the Internal Revenue Service to send the certification directly to the German tax authorities. If no such request is made, the Internal Revenue Service will send a certificate on IRS Form 6166 to the U.S. holder, which then must submit the certification with its claim for refund.

Refunds under the Treaty are not available in respect of shares or ADSs held in connection with a permanent establishment or fixed base in Germany.

#### *Capital Gains*

Under the Treaty, a U.S. holder will not be subject to German capital gains tax in respect of a sale or other disposition of shares or ADSs unless the shares or ADSs were held in connection with a permanent establishment or fixed base in Germany.



Gain or loss realized by a U.S. holder on the sale or disposition of shares or ADSs will be capital gain or loss if the shares or ADSs were held as capital assets, and will be long-term gain or loss if the shares or ADSs were held for more than one year. The net amount of long-term capital gain realized by an individual holder generally is subject to taxation at a maximum rate of 20 percent. A U.S. holder's ability to offset capital losses against ordinary income is subject to limitations. Deposits and withdrawals of shares in exchange for ADSs will not result in the realization of gain or loss for U.S. federal income tax purposes.

#### *Inheritance and Gift Tax*

Under the current estate, inheritance and gift tax treaty between the United States and Germany (the "Estate Tax Treaty"), a transfer of shares or ADSs by gift or by reason of the death of a U.S. holder generally will not be subject to German gift or inheritance tax unless the donor or transferor, or the heir, donee or other beneficiary, is domiciled in Germany for purposes of the Estate Tax Treaty at the time gift was made, or at the time of the donor's or transferor's death, or the shares or ADSs were held in connection with a permanent establishment or fixed base in Germany.

The Estate Tax Treaty provides a credit against United States federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, in a case where shares or ADSs are subject to German inheritance or gift tax and United States federal estate or gift tax.

#### *Information Reporting and Backup Withholding*

Dividends on shares or ADSs, and payments of the proceeds of a sale of shares or ADSs paid within the United States or through certain U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding at a 31 percent rate unless the holder (1) is a corporation or other exempt recipient or (2) provides a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. Holders that are not U.S. persons generally are not subject to information reporting or backup withholding. However, such a holder may be required to provide a certification to establish its non-U.S. status in connection with payments received within the United States or through certain U.S.-related financial intermediaries.

## **ITEM 8—SELECTED FINANCIAL AND STATISTICAL DATA**

### **Financial Data**

The information set forth under the heading "Financial data of the Deutsche Telekom Group at a glance" on page IV in the 1999 Annual Report is incorporated herein by reference. The selected financial data incorporated by reference herein should be read in conjunction with the consolidated financial statements and the notes thereto of Deutsche Telekom in the 1999 Annual Report, which statements and notes are incorporated herein by reference below. Unless otherwise indicated, all amounts are in accordance with German GAAP.

The selected financial data as of December 31, 1999, December 31, 1998, December 31, 1997, December 31, 1996, and December 31, 1995, and for each of the years in the five-year period ended December 31, 1999, have been derived from, and are qualified by reference to, the audited consolidated financial statements for those years.

German GAAP differ in certain significant respects from U.S. GAAP. For a discussion of the principal differences between German GAAP and U.S. GAAP as they relate to Deutsche Telekom, see note 36 to the audited consolidated financial statements.

### **Statistical Data**

	<u>Year ended December 31.</u>				
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>

*Average number (in millions, unless otherwise indicated)*

Standard telephone access lines .....	35.3	37.0	38.1	39.1	38.7
ISDN channels(1) .....	11.7	8.7	6.2	3.9	2.2
Total number of channels.....	47.0	45.7	44.3	43.0	40.9
Public telephones .....	0.1	0.2	0.2	0.2	0.2
Mobile telephone subscribers .....	7.2	4.6	3.2	2.4	1.8
Paging subscribers .....	0.7	0.8	1.0	0.9	0.7
Cable subscribers(2) .....	17.8	17.5	17.0	16.3	15.2
T-Online subscribers.....	3.3	2.3	1.7	1.2	0.8
Domestic calls (billions) .....	50.6	52.7	52.7	50.7	52.3(3)
Outgoing international traffic (millions of minutes)(4) .....	3,864	4,711	4,813	4,761	5,238
Incoming international traffic (millions of minutes).....	6,248	6,036	5,618(3)	4,890(3)	4,215
Channels in service per employee.....	268	246	225	207	186

(1) Each basic access line provides two ISDN channels, each primary access line provides 30 ISDN channels.

(2) Includes households connected through private cable operators. In 1999, 5.1 million households were connected directly to Deutsche Telekom.

(3) Restated.

(4) Estimated.

### ***Dividends***

The following table sets forth the annual dividends paid per share with respect to each of the financial years indicated:

<u>Year Ended December 31,</u>	<u>Dividend Paid per Ordinary Share</u>	
	<u>DM</u>	<u>US\$(1)</u>
1996 .....	0.60	0.35
1997 .....	1.20	0.68
1998 .....	1.20	0.64

(1) Dividend amounts have been translated into dollars at the Noon Buying Rate for the relevant dividend payment date, which occurred during the second quarter of the following year.

Shareholders determine the declaration, amount and timing of dividends in respect of each fiscal year at their annual general meeting in the following year, upon the joint recommendation of the Board of Management and the Supervisory Board. As long as the Federal Republic and KfW own a majority of Deutsche Telekom's voting share capital, they will have the power to control most decisions taken at shareholders' meetings, including the approval of proposed dividend payments. See "Item 4 – Control of Registrant". The Company may declare and pay dividends only from unappropriated net income (*Bilanzgewinn*) of Deutsche Telekom AG, as adjusted to reflect losses or gains carried over from prior years as well as transfers to or from retained earnings. Certain reserves (*Rücklagen*) must be made and deducted in calculating unappropriated net income available for distribution as dividends. For further information relevant to the payment of dividends by Deutsche Telekom AG, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Liquidity—Net Cash Provided by (Used For) Financing Activities".

The payment of future dividends depends on Deutsche Telekom's earnings, its financial condition and other factors, including cash requirements, the future prospects of Deutsche Telekom, and tax, regulatory and other legal considerations. Although Deutsche Telekom expects to pay annual dividends on its shares, you should not assume that any dividend will actually be paid or make any assumption about the amount which will be paid in any given year. To the extent necessary to implement Deutsche Telekom's dividend policy, Deutsche Telekom will consider drawing upon its retained earnings. The Board of Management has recommended a dividend allocation in respect of 1999, which would be payable in 2000, of approximately EUR 1.9 billion, or EUR 0.62 per share (assuming about 3.03 billion shares outstanding). Dividends paid will be subject to German withholding tax. For further information on German withholding tax and related United States refund procedures, see "Taxation".

## ITEM 9—MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion in conjunction with the annual consolidated financial statements, including the notes to those financial statements. Those financial statements have been prepared in accordance with German GAAP, which differ in certain significant respects from U.S. GAAP. For a discussion of the principal differences between German GAAP and U.S. GAAP as they relate to Deutsche Telekom and a reconciliation of net income and total shareholders’ equity to U.S. GAAP, see “—German GAAP Compared to U.S. GAAP” and note 36 to the consolidated financial statements.

Effective January 1, 1999, Germany and ten other member states of the European Union adopted the euro as their common currency. Accordingly, amounts in euro appearing in this discussion for periods after December 31, 1998 have been translated from Deutsche Marks at the official fixed conversion rate of EUR 1.00 = DM 1.95583. For consistency of presentation, Deutsche Telekom has translated amounts in Deutsche Marks for prior periods into euros at this rate. The translation of all Deutsche Mark amounts into euros at the official fixed conversion rate does not affect the trends discussed below. However, the amounts appearing below for dates or periods prior to January 1, 1999 will not be comparable to the amounts reported by other companies reporting in euros that were restated from currencies other than the Deutsche Mark.

### *1999 Performance Summary*

In the second year following the full liberalization of the German telecommunications market, Deutsche Telekom’s consolidated revenue remained stable while consolidated net income declined significantly. Consolidated revenue increased by 0.9 percent to EUR 35.5 billion in 1999, while consolidated net income decreased by 44.1 percent to EUR 1.3 billion in 1999. The decrease in consolidated net income was largely due to a decrease of approximately 53 percent in income before taxes from the network communications segment and a decrease in income before taxes from the international business segment, the effects of which were partially offset by an increase in income before taxes from the mobile communications segment.

Deutsche Telekom again confronted intense competition in its fixed telephone network communications business area, principally on the basis of price, for regional, long distance and international calls. As a result of tariff reductions and the loss of market share, revenues declined by 18.5 percent in the network communications business area, despite growth in access revenues resulting from a substantial increase in the number of ISDN channels and growth in revenues from calls to mobile networks and other services. However, revenue growth in the areas of data communications and carrier services combined with the positive development in revenue from mobile network communications and international activities, as well as an increasing revenue contribution by T-Online, more than offset the decline in consolidated revenues from telephone network communications. Revenues from international activities increased substantially in 1999, in large part as a result of the first-time consolidation of revenues of businesses outside Germany in which Deutsche Telekom acquired controlling interests in 1999, notably One 2 One in the UK and max.mobil. in Austria. Consolidated revenues from international activities increased from EUR 1.4 billion in 1998 to EUR 3.0 billion in 1999.

Overall costs of the Deutsche Telekom group, before taking into account the effect of acquisitions in 1999, remained relatively stable from 1998 to 1999. Acquisitions in 1999, however, principally One 2 One and max.mobil., gave rise to a substantial increase in goods and services purchased, which was related to interconnection with other telecommunication carrier networks, and to increased purchases of terminal equipment for resale, which were mainly mobile handsets. Personnel costs remained stable, as the effects of further reductions in the workforce were offset by an increase in personnel cost per employee. Net interest expense decreased as Deutsche Telekom further reduced its indebtedness on an average basis for the year. As of December 31, 1999, however, financial liabilities increased compared to the prior year end due to the assumption of debt primarily related to the acquisition of One 2 One in the second half of 1999. A lengthening of the depreciation periods of outside plant and equipment and the effect of lower levels of capital expenditures

in 1997 and 1998 led to reduced depreciation and amortization in 1999, although this effect was partially offset by goodwill amortization arising from the acquisitions made in 1999.

### ***Dynamics Affecting Deutsche Telekom's Business***

Deutsche Telekom's business has been affected in recent years by a number of important trends. Telephony and data traffic in Germany have been positively influenced by societal and macro-economic factors, such as the globalization of trade and the increasing integration of European markets, a trend toward the decentralization of businesses, the growth of the service sector in Germany and the greater mobility of the population. The rapidly expanding market for mobile and Internet communications, steady growth in data transmissions, and the advent of new technologies are reshaping the business of telecommunications.

The telecommunications sector has also undergone a radical regulatory transformation. Following a period of partial and gradual liberalization in the early 1990s, the enactment of the German Telecommunications Act (*Telekommunikationsgesetz*) in 1996 and the ordinances implemented since then have made Germany one of the most open and competitive telecommunications markets in the world. The last of Deutsche Telekom's monopoly services—public fixed network voice telephony—was opened to competition in 1998. At the end of 1999, there were more than 250 business enterprises that had been granted more than 600 licenses for different telecommunications services in Germany.

Under the Telecommunications Act, Deutsche Telekom is viewed by the relevant regulatory authorities as dominant in the market for public fixed network voice telephony services and in certain other markets. Although Deutsche Telekom is actively encouraging regulatory re-evaluation of the markets in which Deutsche Telekom is viewed as dominant, this status may not change in significant markets for some time to come. As a result, unlike the tariffs of its competitors, many of Deutsche Telekom's tariffs are and may remain subject to regulation. During the past two years, a number of regulatory controversies were resolved in ways which did not always satisfy Deutsche Telekom or its competitors, but which did bring in some cases greater certainty to the telecommunications business environment. For a discussion of pending regulatory decisions and related litigation, see "Description of Business—Regulation" and "Legal Proceedings".

***Network Communications.*** Domestic and international public fixed network voice telephony, which was opened to full competition on January 1, 1998, continued to be Deutsche Telekom's most significant service in 1999 in terms of contribution to consolidated revenues and consolidated profits.

The introduction of full competition in the telephone market has inevitably resulted in loss of market share for Deutsche Telekom. According to official publications of the Regulatory Authority, Deutsche Telekom had an 80 percent share of the overall German telecommunications market at the end of 1999, as measured in terms of minute volume, which reflects a market share of 60 percent in the combined markets for domestic long-distance calls, international long-distance calls and calls to mobile networks. Although the overall fixed-line telephony market in Germany grew in 1999 in terms of minutes, traffic volume on Deutsche Telekom's fixed network that gave rise to revenues shown under "network communications" decreased. This resulted primarily from further market share gains by Deutsche Telekom's competitors, particularly in the areas of regional, national and international long-distance calls. The minutes associated with revenues for many calls to T-Online, which were shown under "network communications" in 1998 but under "other services" in 1999, also contributed to the decline traffic volume that gave rise to revenues shown under "network communications".

Deutsche Telekom's competitors in this area include international telecommunications carriers and start-up domestic companies, as well as industrial conglomerates, utility companies and municipal enterprises that have diversified into telecommunications. In 1999, Deutsche Telekom's competitors continued to place particular emphasis on price competition in the area of long-distance and international calls. On the basis of interconnection rates fixed by the Regulatory Authority, numerous competitors are able to compete with Deutsche Telekom with minimal or modest investments in network infrastructure and with prices that often undercut Deutsche Telekom's pricing. The decision by the Regulatory Authority to further reduce interconnection rates for 2000 and 2001 is expected to lead to further competition in this area. For further

information concerning interconnection rates, see “Description of Business—Regulation—Special Network Access and Interconnection”.

Deutsche Telekom as yet has not lost significant market share in the market for local calls. Deutsche Telekom is required, however, to provide competitors with unbundled access to its subscriber access lines, and the Regulatory Authority has set a monthly tariff for this unbundled access that is substantially lower than Deutsche Telekom had sought in its tariff application. In addition, in 1999, the Regulatory Authority granted licenses to competitors for a technology that permits competitors to establish a direct wireless connection from the telephone network to the telephone end-user. Deutsche Telekom therefore expects that it will face increasing competition on the local network level in the future.

Deutsche Telekom has introduced several tariff reductions during the past three years to address competitive challenges and, in some instances, to meet regulatory requirements imposed by a price cap regime applicable to the tariffs for Deutsche Telekom’s public fixed-line voice telephony services. In March 1998, Deutsche Telekom reduced tariffs for national and international long-distance calls, as well as special rebates and optional tariffs. Deutsche Telekom implemented lower tariffs for domestic long-distance calls in January 1999 and in April 1999 and introduced new reduced tariffs for international calls to 22 countries, as well as reduced tariffs for optional tariff programs and special tariffs for business customers, in July 1999. Further reductions in fixed-network tariffs and additional special tariffs were introduced on February 1 and March 1, 2000 to meet the ongoing competitive challenge in this business area. Deutsche Telekom is aiming to offset partially the reduction in revenues resulting from these tariff measures with higher access charges, particularly from T-ISDN and T-DSL.

**Mobile Communications.** As in prior years, the German mobile communications market exhibited strong growth in 1999. New products and tariffs enabled new customer groups to have access to this market. At the end of 1999, there were over 23.2 million mobile phone users registered in Germany, representing an increase of 72 percent over the prior year. As a result of this very strong growth, consolidated revenues of the mobile communications segment increased by 28 percent from 1998. In 1999, new mobile data communications services, such as “short message services,” also began to contribute to revenue growth. Despite this growth, however, the mobile penetration rate of 28.3 percent in Germany at year-end 1999 was relatively low in comparison to other Western European countries. Deutsche Telekom therefore believes that the market holds considerable potential for further expansion. Customers benefited in 1999 from intense competition, which resulted in the implementation of new tariff reductions and special offers. Deutsche Telekom has reorganized a substantial portion of its European mobile telecommunications business into a new holding company, T-Mobile International.

**Data Communications.** The market for data communications has been open to competition for several years and has experienced strong growth during that time, particularly in terms of data traffic volume. This growth in traffic volume is reflected in the fact that revenues of Deutsche Telekom’s data communications business area increased by 11.5 percent from 1998 to 1999 despite fierce price competition. Recent developments show a trend toward network services and corporate/managed networks. The majority of revenues from data communications now comes from managed networks, which combine, depending on the customer’s needs, all data communications products from basic data transport to higher value-added services such as Internet Protocol (IP) and Asynchronous Transfer Mode (ATM) transport. Deutsche Telekom has increased its sales in the data communications area with its broad portfolio of high quality services and tailored systems solutions which it offers through its technologically advanced network. Deutsche Telekom’s goal is to offer customized information and communications solutions to customers in need of integrated services. Deutsche Telekom’s recently announced strategic engagement in debis Systemhaus GmbH should enhance Deutsche Telekom’s competitive position in this area.

**Online and Internet.** The innovative market for online and Internet services experienced another year of strong growth in 1999. T-Online, Deutsche Telekom’s online and Internet service, increased its subscriber base by 53.8 percent to 4.2 million customers at year end 1999 and thus remained the largest online service provider in both Germany and Europe. As a result of this growth, T-Online contributed approximately EUR 160 million

to revenue growth in Deutsche Telekom's "other services" business area in 1999. The challenge for T-Online, which has the vast majority of its customers in Germany, will be to maintain its market leadership within Germany in the face of competition from other providers, while at the same time developing non-German language services and building its international franchise. T-Online took an important step toward maintaining its market leadership in Germany by announcing the formation of an online banking strategic relationship and cross-shareholding with comdirect, a subsidiary of Commerzbank, in February 2000. The introduction of T-Online services in Austria in December 1999 in cooperation with max.mobil. and the pending acquisition of Club Internet, a leading French internet service provider, represent the first steps toward building T-Online's international franchise. Deutsche Telekom currently is exploring further opportunities to expand T-Online service outside Germany.

**Carrier Services.** In the second year after full liberalization of the market for voice telephony, the terms under which Deutsche Telekom offers competitors access to its network generally remain subject to supervision by the Regulatory Authority. In December 1999, however, the Regulatory Authority determined that Deutsche Telekom is no longer dominant in the market for interconnection to foreign countries. In the area of national interconnection services, the Regulatory Authority approved new interconnection tariffs which became effective on January 1, 2000. For further information on regulation of this business area, see "Description of Business—Carrier Services" and "Description of Business—Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection."

**Broadcasting and Broadband Cable.** Revenues in the area of broadcasting and broadband cable in 1999 were relatively stable as compared to 1998. The tariffs that currently apply to Deutsche Telekom's broadcasting and broadband cable activities were approved by the Regulatory Authority in 1998 with effect as of November 1997.

Throughout 1999, Deutsche Telekom explored opportunities for the sale to third-party investors of equity interests in the regional cable companies it plans to form during 2000 to hold the core of its cable operations and related non-current assets. In February and March, 2000 Deutsche Telekom reached its first agreements for sales of majority interests in two of these companies. For further information on Deutsche Telekom's sale of interests in its cable operations, see "Description of Business—Broadcasting/Broadband Cable."

**International Business.** Competition in the telecommunications industry increasingly takes place on an international level, as network operators seek economies of scale. International acquisitions significantly expanded the geographic scope of Deutsche Telekom's activities in 1999. In the area of mobile communications, Deutsche Telekom increased its stake in the Austrian mobile communications company max.mobil. to 91 percent of the outstanding shares, acquired all of the outstanding shares of the British mobile carrier One 2 One and made further investments in mobile communications companies in Eastern Europe. Although their subscriber bases are smaller than those of T-Mobil, both max.mobil. and One 2 One are experiencing even stronger subscriber growth and revenue growth than T-Mobil. For further information on these acquisitions and investments, see "Description of Business—International—International Acquisitions in 1999." Consolidation of the revenues of max.mobil. and One 2 One, which are reflected in revenues of Deutsche Telekom's "international" business area, contributed significantly to increased revenues in 1999, while goodwill amortization and other costs relating to these companies contributed substantially to increased costs.

In the field of data communications and network access, the acquisition of SIRIS, a leading alternative French fixed-network operator, and the acquisition of a significant equity interest in HT – Hrvatske telekomunikacije d.d., the largest telecommunications company in Croatia, contributed to the expansion of Deutsche Telekom's European presence.

### **Technology**

For the longer term, rapid technological changes in telecommunications and information technology will continue to have a profound effect on the way Deutsche Telekom does business and give rise to new competitive challenges since the traditional businesses of telecommunications, information technology, media, entertainment and security are increasingly converging. Technological advances have increased the capacity and bandwidth of

telecommunications networks and led to the rise of a number of alternatives to fixed network transmission. Multiple forms of mobile communications, wireless transmission and Internet technology and their declining costs are certain to increase the sources of competition faced by Deutsche Telekom's traditional business. They also open new opportunities arising from the convergence of information and communications technologies, where Deutsche Telekom's advanced nationwide networks allow it to offer sophisticated services based on ISDN or ADSL technologies, IP technology or telematics solutions.

### *Costs*

During 1999, Deutsche Telekom continued to pursue the cost reduction goals that it set for itself at the time of its 1996 initial public offering. As a result of the acquisition of One 2 One and of the majority interest in max.mobil. in 1999, however, indebtedness of the Deutsche Telekom group and the number of employees of the group increased, which can be expected to exert an upward influence on interest expense and personnel costs in future years. Deutsche Telekom will, however, continue in 2000 its program to reduce employee headcount and personnel cost in the companies that were part of the Deutsche Telekom group at year-end 1994.

Deutsche Telekom determined several years ago that its number of employees exceeded the number needed to operate in a competitive environment. Accordingly, Deutsche Telekom announced in 1995 its intention to reduce its workforce by a total of 60,000 full-time equivalent employees (excluding employees added through changes in the composition of the consolidated Deutsche Telekom group) by the end of the year 2000 and introduced a workforce reduction program. As of December 31, 1999, the companies that were part of the consolidated Deutsche Telekom group at the beginning of 1995 had 172,233 employees. From the start of this workforce reduction program to December 31, 1999, Deutsche Telekom had reduced the number of employees of those companies by 57,200, with a reduction of 6,900 in 1999 alone. Deutsche Telekom estimates that it will be able to reach its announced goal before the end of the year 2000. The workforce reduction program relied on natural attrition, early retirement and other measures to achieve its objective. Deutsche Telekom has extended through 2004 an agreement with labor unions that Deutsche Telekom will refrain from involuntary layoffs for business reasons.

Personnel costs increased by 0.4 percent in 1999, largely due to the effect of the addition of employees of companies first consolidated in 1999 and due to a slight increase in personnel costs per employee in Germany. For further information on the development of Deutsche Telekom's personnel costs, see “—Results of Operations—Total Operating Costs and Expenses—Personnel Costs”.

To reduce interest expense and strengthen its capital structure, Deutsche Telekom reduced its outstanding net indebtedness by 34 percent from EUR 64 billion at January 1, 1995 to EUR 42 billion at December 31, 1999 through scheduled and early repayment of indebtedness. Net indebtedness may rise in the future, however, as a result of Deutsche Telekom's growth strategy. For further information relating to interest expense, see “—Results of Operations—Financial Income (Expense), Net—Net Interest Expense”.

Depreciation and amortization increased in 1997 and decreased in 1998 and 1999. The increase in 1997 was primarily a consequence of the accelerated digitization of Deutsche Telekom's exchanges in the Federal States comprising the former West Germany and the build-out of Deutsche Telekom's network in eastern Germany, both of which were completed in December 1997. As expected, depreciation started to decline in 1998 as a result of the full depreciation of Deutsche Telekom's analog exchanges and transmission equipment. The decrease in depreciation and amortization in 1999 resulted from a lengthening of the useful lives of outside plant network, the effect of which was partially offset by the amortization of goodwill relating to companies acquired in 1999. Amortization of goodwill for One 2 One will be higher in 2000 than in 1999, as One 2 One was part of the consolidated Deutsche Telekom group only during the fourth quarter of 1999. In addition, acquisitions made during 2000 (such as T-Online's announced acquisitions) will contribute to increased goodwill amortization in 2000. Future acquisitions accounted for using the purchase method of accounting may result in increased goodwill amortization over coming years, which could reduce net earnings or lead to net losses. For further information relating to depreciation and amortization, see “—Results of Operations—Total Operating Costs and Expenses—Depreciation and Amortization”.

Other cost items, such as costs of goods and services purchased and other operating expenses, have gained increasing significance in Deutsche Telekom's statement of income. Some of these cost items relate closely to developments in the fully liberalized telecommunications market as Deutsche Telekom increasingly incurs costs for the termination of calls on the networks of other carriers, especially in the growing mobile market.

### ***Real Estate***

Due to the consolidation of various operations, the complete digitization of its network and ongoing workforce reductions, a portion of Deutsche Telekom's owned and leased properties will not be required in its core business in the future. Over time, this should allow Deutsche Telekom to reduce its net real estate occupancy costs by reducing the amount of property leased from third parties upon termination of existing leases and relocating operations from high-cost urban centers to outlying areas. Deutsche Telekom expects to consider selling or leasing surplus owned properties, including properties with pre-installed telecommunications systems, on a case-by-case basis.

Deutsche Telekom's real estate was revalued at January 1, 1995 at fair market value as described in the notes to the Consolidated Financial Statements under "Summary of significant accounting policies—Accounting and valuation". As of December 31, 1999, Deutsche Telekom's real estate had an aggregate book value of EUR 17.2 billion. In 1997, Deutsche Telekom established a EUR 205 million reserve in respect of potential losses associated with the disposition of properties no longer used in its businesses. In 1999, this reserve was increased by EUR 21 million.

In view of the size of Deutsche Telekom's real estate portfolio and its expectation of a decline in its need for some properties over time, the development of the German real estate market, as well as the ongoing evaluation of the need for individual properties for Deutsche Telekom's business, will be among a number of significant factors which may affect the results of Deutsche Telekom in coming years. Upon any sale of real estate, losses and gains will be realized accordingly. For further information relating to Deutsche Telekom's property, see "Description of Property."

### ***Income before Taxes by Business Segment***

In 1998, Deutsche Telekom started reporting its business segment revenue, operating income and net asset information on the basis of the segment reporting requirements of Statement of Financial Accounting Standard (SFAS) No. 131. In 1999, a year on year comparison has become available for the first time. Due to changes in Deutsche Telekom's internal organization and the reengineering of its management information and accounting systems, the generation of segment information for periods prior to 1998 would be impracticable.

	<b>Income before Tax</b>		
	<b>Year ended December 31, (1)</b>		
	<b>1999</b>	<b>1998</b>	<b>1999/1998</b>
	<b>(millions of euro)</b>		<b>(% change)</b>
Network communications .....	2,276	4,796	(52.5)
Mobile communications.....	1,033	560	84.5
Carrier services .....	440	589	(25.3)
Data communications.....	104	(61)	270.5
Terminal equipment.....	19	(114)	116.7
Broadcasting and broadband cable .....	(86)	(329)	73.9
Value-added services .....	(152)	(182)	16.5
International.....	(339)	200	(269.5)
Other .....	(408)	(384)	(6.3)
Adjustment.....	<u>57</u>	<u>25</u>	128.0
<b>Deutsche Telekom group.....</b>	<b>2,944</b>	<b>5,100</b>	<b>(42.3)</b>

(1) The income before tax figures for 1998 differ from the figures presented in Deutsche Telekom's Annual Report on Form 20-F for 1998 in that net interest expense for 1998 has been restated to reflect the 1999 method of reporting. Overall a total of EUR 215 million has been reclassified from net interest expense of "Other" into other segments.



The results in network communications were influenced by a decline in market share and by reduced tariffs, both of which contributed to a substantial decline in revenues. Cost reductions attributable to the network communications segment were not sufficient to offset the effect of this decline in revenue on profits in this area.

As in 1998, the improvement in mobile communications was based primarily on strong growth in the mobile subscriber base, which was only partially offset by a decline in revenues per minute.

Income before taxes of the carrier services business area decreased to EUR 440 million in 1999, despite substantially increased revenues in this business area. This development is primarily a result of higher depreciation and other costs relating to increased traffic and increased revenues.

The turnaround in data communications resulted primarily from an increase of EUR 292 million in consolidated revenues of this business area.

The attainment of profitability in the terminal equipment segment resulted from further streamlining of its product portfolio and from other measures taken to enhance efficiency. This segment is characterized by heavy competition and low margins. Deutsche Telekom believes that terminal equipment supply helps bind it to its customers.

The improvement in the loss position of broadcasting and broadband cable was primarily attributable to broadband cable activities and resulted largely from both cost reductions and revenue increases. The increase in revenue resulted from the growth in the number of cable subscribers, improvements in billing procedures and the gradual elimination during 1998 of the effects of prepayments made by customers prior to the introduction of higher cable subscription fees in November 1997. See “—Net Revenues—Broadcasting and Broadband Cable.”

The reduction in losses in the value added services area is mainly attributable to further adjustments of the number and location of Deutsche Telekom’s public telephones.

The international segment consists principally of the Hungarian telecommunications provider MATÁV and, for the first time in 1999, the mobile communications companies One 2 One and max.mobil. Losses in the international business area in 1999 were primarily attributable to operating losses of max.mobil. and One 2 One and to increased goodwill amortization and interest expense that resulted from the first time consolidation of these companies. These factors more than offset continued growth in MATÁV’s profits.

“Other segments” includes the “other services” business area, which consists of multimedia and ancillary activities of Deutsche Telekom. “Other segments” also reflects results from associated and related companies. While the data communications and carrier services segments were shown under the category “other segments” in 1998, these segments are being presented separately in 1999, and the 1998 figures have been adjusted to accommodate this change. For further information with regard to changes in segment reporting, see Note 39 to the consolidated financial statements.

In 1999, the increase in the loss of other segments resulted from an increase in write downs of financial assets, principally relating to T-Mobil’s investment in ICO Global Communications Ltd., and to a small extent from losses of T-Online, the effects of which were partially offset by a decrease in Deutsche Telekom’s share of losses from associated and related companies and from increased fees for billing services. The improvement in losses attributable to associated companies reflected continued negative results related to Global One, an improvement in share of losses from Deutsche Telekom’s Asian ventures and Deutsche Telekom’s share of profits in the Russian telecommunications company MTS. For further information relating to losses from associated companies, see “—Results of Operations—Financial Income (Expense), Net—Income (Loss) from Financial Activities”.

Despite the negative effects of price decreases, the network communications segment continued in 1999 to be the principal contributor to Deutsche Telekom’s income before taxes, followed by mobile communications and carrier services. The data communications and terminal equipment segments, which had been loss-making

in 1998, made a modest contribution to profits in 1999. The broadcasting and broadband cable, value-added services and international activities segments, as well as other segments, which include multimedia activities and results of international associated and related companies, showed negative results in 1999.

### **Outlook**

Deutsche Telekom believes that the broad trends that influenced the German telecommunications market in 1998 and 1999 will continue in 2000, with traffic volume in the overall market displaying growth and price levels continuing to decline. The governmentally mandated reduction in interconnection charges that took effect at the beginning of the year 2000, in particular, is expected to contribute to further declines in prices. Deutsche Telekom expects the number of service providers in Germany to decline, with some initial consolidation moves already having occurred over the past twelve months. Deutsche Telekom believes that its strengths – such as comprehensive and innovative offerings, system solutions expertise, quality and service – will become increasingly evident as the market consolidates.

Deutsche Telekom is focusing its expansion efforts on the four strategic pillars of its growth strategy: access services, mobile communications, data /IP/systems and consumer Internet services. Deutsche Telekom plans to pursue growth aggressively in these areas through acquisitions, internal expansion, strategic engagements and other measures. In this regard, Deutsche Telekom actively pursues opportunities throughout the world, but with an emphasis on Europe and the United States. Deutsche Telekom has engaged, and may continue to engage from time to time, in discussions with other parties that may lead to one or more substantial acquisitions or business combinations.

The strategies and expectations referred to in this outlook discussion may be strongly influenced or changed by shifts in market conditions, new initiatives undertaken by Deutsche Telekom and other factors. Please refer to “Forward-Looking Statements” for a description of some of the factors relevant to this discussion and other forward-looking statements in this report. Deutsche Telekom cannot guarantee that the strategies and expectations referred to in this discussion will come to fruition.

## ***Revenues***

As in 1999, revenues from Deutsche Telekom's network communications business will be strongly influenced by price reductions during 2000. In February 2000, Deutsche Telekom introduced major price cuts for international calls to over 50 countries and from the fixed network to the T-D1 mobile network. These were followed on March 1, 2000 by reductions in prices for regional and long-distance calls and an extension of the off-peak period. Other price and service campaigns may be launched during the course of the year. The principal aim of these measures is to stabilize Deutsche Telekom's market share in the domestic network communications market. Deutsche Telekom expects that the anticipated decline in revenues from price reductions in 2000 will be offset to a limited extent by higher revenues from initial connection fees and monthly rental charges, particularly for T-ISDN and T-DSL.

Deutsche Telekom aims to compensate for the expected decrease in revenues from network communications resulting from its price reductions with revenue growth from other areas. Revenue growth in the areas of mobile communications and data communications, and to a lesser extent in the online services area, will be important in accomplishing this aim.

The transfer of a major portion of the cable business of Deutsche Telekom AG into a separate subsidiary at the beginning of 1999 and the establishment of nine regional subsidiaries, commencing on July 1, 2000, have laid the foundation for the planned sale of majority interests on a regional basis in the cable business. In February and March 2000, Deutsche Telekom reached agreements for the sale of majority interests in the subsidiaries that will operate in the regions of North-Rhine-Westphalia and Hesse. Deutsche Telekom is proceeding with plans to sell majority stakes in additional regional companies in 2000 and 2001. As a result of these sales, revenues from the affected subsidiaries will no longer be fully consolidated with those of Deutsche Telekom.

In 2000, Deutsche Telekom's revenues from international activities should be favorably affected by Deutsche Telekom's international acquisition program. Having sold Global One to France Telecom, Deutsche Telekom will have the freedom to pursue opportunities that were formerly closed to it under contractual arrangements relating to Global One. Deutsche Telekom is determined to pursue the further internationalization of its business in 2000.

Deutsche Telekom believes that, in the absence of unforeseen developments, its overall revenue in the year 2000 will be higher than in 1999, despite the partial loss of revenue from cable activities that are sold. Deutsche Telekom's aim is to have price-driven reductions in revenue in domestic fixed-line telephony compensated for by increases in revenue from Deutsche Telekom's mobile communications, data communications and online services businesses, both as a result of the growth of Deutsche Telekom's existing operations and as a result of acquisitions.

## ***Costs***

In view of the expected revenue trends during 2000, Deutsche Telekom will again focus on cost management. Deutsche Telekom expects that its cost of goods and services purchased will increase in 2000, primarily due to an increase in other services purchased. The increase in other services purchased is expected to result principally from costs relating to Deutsche Telekom's expansion in the national and international mobile telephony businesses. Due to falling settlement rates, international network access charges are decreasing, but this development is largely offset by increases in domestic network access charges. Deutsche Telekom's cost of goods and services purchased – for example, from software companies and IT providers – is expected to increase as increasing emphasis is put on activities outside of the traditional voice telephony business. Deutsche Telekom's objective is to keep the growth in the cost of goods and services purchased below the rate of revenue growth through, for example, improvements in purchasing procedures and an increase in the number of goods and services generated in-house.

In the year 2000, Deutsche Telekom will not continue the substantial workforce reductions of the past few years due to the impact of acquisitions and a significant build-up of sales personnel that is planned for 2000.

However, a change in payment requirements relating to civil servant pension fund contributions that is scheduled to take effect in 2000 should enable Deutsche Telekom to maintain personnel costs at the 1999 level within the group of companies that were part of the consolidated Deutsche Telekom group at year-end 1999, excluding the effect of the sale of regional cable companies.

Depreciation and amortization in 2000 are expected to increase due to the goodwill amortization relating to acquisitions made in 1999 or 2000. Distinctly higher overall investment volume in 2000, which will include planned investments in the expansion of international networks and is likely to include the purchase of UMTS licenses in several countries, is likely to give rise to increased depreciation in 2000.

In 2000, other operating expenses are expected to be notably higher than in 1999 as a result of increased advertising costs and commission on sales. This is largely the result of expansion in the existing mobile communications business area and the acquisitions made in this business area in 1999.

Deutsche Telekom experienced a decrease in net interest expense in 1999. This was largely due to the reduction of indebtedness on an average basis from 1998 to 1999. Depending on decisions on financing recent and further acquisitions net interest expense may rise significantly in the future.

Income from related and associated companies in 2000 is likely to differ substantially from that of the prior year due to the realignment of Deutsche Telekom's investment portfolio. In 2000, the removal of losses from Global One should have a positive effect. In addition, if matters progress as anticipated, Deutsche Telekom expects that a further source of revenue may result from the sale of interests in the regional cable companies.

Deutsche Telekom does not expect the decline in margins in network communications and the initial losses and amortization of goodwill resulting from new international shareholdings to be fully offset by increased profitability in other business areas in 2000.

### **Capital Markets Activities**

Deutsche Telekom's subsidiary, T-Online International AG, is scheduled to become publicly traded through the issuance and sale of approximately 100 million T-Online shares in mid-April 2000. Deutsche Telekom's mobile telecommunications subsidiary, T-Mobile International AG, may come to the market in the second half of 2000, although a final decision in this regard has not been reached. Deutsche Telekom will retain a controlling interest in each of these two companies.

Kreditanstalt für Wiederaufbau (KfW) has announced that it has engaged a financial advisor to advise it with respect to a disposition of a portion of its holdings of Deutsche Telekom shares. Deutsche Telekom currently expects that this disposition will be accomplished by means of a share offering in June 2000.

In part to enhance the ability of Deutsche Telekom to finance future acquisitions with its own shares, the Board of Management of Deutsche Telekom will present a resolution to create new authorized capital stock at the annual shareholders' meeting in May 2000.

### **Results of Operations**

#### ***Net Revenues***

Network communications services, which are basically domestic and international public fixed-line network voice telephony services, are the largest contributor to Deutsche Telekom's consolidated net revenues. Deutsche Telekom also obtains revenues from interconnection services for domestic and international network operators, domestic and international services in the field of data communications and systems solutions, and mobile communications services. Broadcasting and broadband cable, the supply and sale of terminal equipment, value-added services, and other ancillary services including multimedia communications services such as T-Online round out the range of products and services offered by Deutsche Telekom. Revenues of Deutsche

Telekom's non-German subsidiaries (principally MATÁV, max.mobil. and One 2 One) are included under the heading "International" in the revenue presentation appearing below.

The following table shows Deutsche Telekom's net revenues broken down by major business areas and as a percentage of net revenues for the last three years.

	<u>Year ended December 31,</u>					
	<u>1999</u>	<u>1998</u>		<u>1997</u>		
	<i>(millions of euro, except percentages)</i>					
Network communications .....	16,737	47.2%	20,531	58.4%	21,420	62.1%
Mobile communications.....	3,919	11.0%	3,061	8.7%	2,573	7.5%
International .....	2,953	8.3%	1,396	4.0%	1,241	3.6%
Carrier services .....	2,884	8.1%	1,611	4.6%	1,229	3.5%
Data communications.....	2,828	8.0%	2,536	7.2%	2,345	6.8%
Broadcasting and broadband cable .....	1,917	5.4%	1,804	5.1%	1,597	4.6%
Value-added services .....	1,903	5.4%	2,051	5.9%	2,001	5.8%
Terminal equipment.....	1,207	3.4%	1,382	3.9%	1,517	4.4%
Other services (including Multimedia) .....	<u>1,122</u>	<u>3.2%</u>	<u>772</u>	<u>2.2%</u>	<u>582</u>	<u>1.7%</u>
<b>Net revenues .....</b>	<b><u>35,470</u></b>	<b><u>100.0%</u></b>	<b><u>35,144</u></b>	<b><u>100.0%</u></b>	<b><u>34,505</u></b>	<b><u>100.0%</u></b>

The presentation of Deutsche Telekom's revenues generally reflects the organization of Deutsche Telekom's business in 1999. Deutsche Telekom's business was rearranged in some respects during 1999. Data presented for previous years have been restated to reflect the new business structure solely to facilitate year-to-year comparisons. As a consequence of the rearrangements in 1999 and 1998 and a 1997 reorganization, some of the line item information presented in the following discussion is not directly comparable with corresponding line item information contained in the financial statements that were included in Deutsche Telekom's Annual Reports on Form 20-F for 1998 and 1997.

Major changes in the presentation of revenues for 1999 are described below:

- As of January 1, 1999, the amounts billed for other network operators, and the corresponding amounts paid to those operators, are no longer shown under net revenue and goods and services purchased, but are instead disclosed net.
- As of January 1, 1999, the amounts billed at T-Online for content providers, and corresponding amounts paid through to content providers, are no longer shown under net revenues and goods and services purchased, but are instead disclosed net.
- Amounts relating to Deutsche Telekom's communications network subsidiary DeTeLine Deutsche Telekom Kommunikationsnetze GmbH that were shown under "other services" in 1998 are shown under "data communications" in 1999.
- Amounts relating to maintenance services that were shown under "terminal equipment" in 1998 are shown under "other services" in 1999.

**Network Communications.** Revenues from network communications consist of revenues from domestic telephone communications and from international telephone communications. Domestic telephone communications revenues include initial connection fees and monthly rental charges as well as call charges. Call charges originate from local, regional and domestic long-distance calls, calls to mobile networks and calls to Internet service providers, other than T-Online. Revenues from calls made to T-Online on or after April 1, 1999 in connection with most tariff packages of T-Online are reflected under "other services." International telephone communications revenues consist of call charges that originate from international long-distance calls. Revenues from network communications are likely to be affected by many influences and trends, as described more fully above under the heading "—Dynamics Affecting Deutsche Telekom's Business".

The following table sets forth the net revenues from telephone network communications services.

	<u>Year ended</u>			<u>Year ended</u>	
	<u>December 31,(1)</u>			<u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Initial connection fees, access charges and other network services .....	6,333	6,136	5,990	3.2	2.4
Call charges					
Local calls .....	4,058	4,271	4,000	(5.0)	6.8
Domestic long distance calls .....	2,988	6,372	7,494	(53.1)	(15.0)
International telephone communications .....	1,405	2,083	2,508	(32.5)	(16.9)
Connection to mobile and others .....	<u>1,953</u>	<u>1,669</u>	<u>1,428</u>	17.0	16.9
<b>Total network communications .....</b>	<b><u>16,737</u></b>	<b><u>20,531</u></b>	<b><u>21,420</u></b>	<b>(18.5)</b>	<b>(4.2)</b>

(1) Prior year figures have been adjusted to reflect a change in management reporting relating to other network services. Revenues of EUR 2 million for 1998 and EUR 21 million for 1997 are now shown under other services.

*Initial Connection Fees, Monthly Rental Charges and Other Network Services.* Revenues from initial connection fees, monthly rental charges and other network services are primarily a function of the number and mix of standard telephone and ISDN access lines and the corresponding initial connection fees and monthly rental charges.

The average number of access channels (adjusted to reflect ISDN channels) has risen over the last three years as indicated below.

	<u>Year ended</u>		
	<u>December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
	<u>(millions)</u>		
.....Average number of access channels .....	47.0	45.7	44.3

The increase in revenues from initial connection fees, monthly rental charges and other network services in both 1998 and 1999 resulted primarily from growth in the number of access channels. This growth was, however, partially offset by a slight decrease in 1999 in the average monthly access charge per access channel.

*Domestic Call Charges.* Revenues from call charges are a function of the number of telephone calls, average call duration, the mix of local, regional, and long distance calls as well as the time of the call and the applicable tariffs. In general, domestic telephone traffic is influenced by trends in the German telecommunications market and other market developments as described above under the heading “Dynamics Affecting Deutsche Telekom’s Business”.

Deutsche Telekom started its second year of competition with major tariff reductions. Deutsche Telekom introduced significant reductions in prices for domestic calls in 1999 in response to intense competition on these markets. As a result, average charges per minute for domestic fixed-line traffic declined by around 33 percent as compared to the average for 1998. Despite Deutsche Telekom’s price reductions, intense competition in the domestic long distance and regional areas, conducted primarily on the basis of price, resulted in a 4.5 percent decrease in minutes from domestic calls. The decrease in volume was particularly pronounced in the area of domestic long-distance calls, where minute volume declined by 15.7 percent. As in 1998, customers were able to select competitor carriers either on a call-by-call basis or through carrier preselection. The combination of the decline in average charges per minute and the decline in minutes from domestic traffic resulted in an overall decline of 26.9 percent in revenue from domestic call charges.

In 1998, revenues from domestic call charges were 4.7 percent lower than in 1997, primarily due to tariff cuts and a decrease in the volume of domestic traffic, both of which resulted from increasing competition. The decrease in volume particularly affected domestic long-distance calls, where minute volume fell by 7.1 percent.

In both 1998 and 1999, increased revenues from calls to mobile networks and from connections to online service providers partially offset decreased revenues from other types of calls.

Deutsche Telekom reduced tariffs for calls from fixed-network lines to T-D1 mobile phones in February 2000 and tariffs for calls in the regional and national zones in March 2000. In addition, the number of regional tariff zones has been reduced and off-peak periods have been lengthened. These measures are likely to result lower revenues per minute from domestic calls in 2000.

*International Telephone Communications.* Revenues from call charges for international long-distance calls are a function of tariffs and the volume, duration and mix of outgoing international traffic. In general, international telephone traffic is influenced by trends in the telecommunications markets and other market developments as described above under the heading “—Dynamics Affecting Deutsche Telekom’s Business”.

On June 1, 1999 Deutsche Telekom significantly reduced its tariffs for long distance calls, in particular for calls to many European countries. See “Description of Business—Network Communications”.

The volume of Deutsche Telekom’s international outgoing traffic was 18.0 percent lower in 1999 than in 1998. This decrease was attributable to intense competition in Germany for international telephony traffic, principally on the basis of price. During 1999, competitors made significant gains in market share. The tariff cuts introduced in June 1999, together with the decrease in minutes from international calls during 1999, resulted in a 32.5 percent decrease in revenues from international calls in 1999 as compared to 1998. Revenues from international telephone services were 16.9 percent lower in 1998 than in 1997, primarily due to major tariff cuts implemented in March 1998 and, to a lesser extent, due to a decrease in volume brought about by the introduction of competition at the beginning of 1998.

Deutsche Telekom introduced a further reduction in tariffs for international calls on February 1, 2000, which is likely to result in a further reduction in revenues from international calls for 2000.

*Carrier Services.* Revenues from licensed service providers and carriers consist of charges paid by domestic and foreign carriers for access to Deutsche Telekom’s network to carry calls placed by the customers of such carriers. In addition, domestic interconnection services revenues contain charges paid by other fixed network operators and mobile communications providers for specially tailored leased lines. In 1997 and prior years, revenues from domestic interconnections were generated only by the interconnection of domestic mobile phone networks to the fixed network operated by Deutsche Telekom. In the international area, revenues also include transit traffic carried on Deutsche Telekom’s network.

The following table contains information concerning the development of revenues from licensed service providers and carriers.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Domestic interconnection services .....	2,098	829	310	152.9	167.6
International interconnection services .....	<u>786</u>	<u>782</u>	<u>919</u>	0.5	(14.9)
<b>Carrier Services .....</b>	<b><u>2,884</u></b>	<b><u>1,611</u></b>	<b><u>1,229</u></b>	<b>79.0</b>	<b>31.2</b>

In the fully liberalized German telecommunications market, the number of fixed network competitors that have to connect with Deutsche Telekom’s network in order to terminate their customers’ calls increased significantly in 1999, which brought considerable growth in traffic volume in the area of domestic interconnection services and corresponding growth in revenue. The continued expansion of the mobile communications market also contributed to the revenue growth in this area. Revenue growth in this area was not, however, sufficient to offset a corresponding decline in network communications revenues.

At the beginning of 2000, Deutsche Telekom implemented the new lower domestic interconnection rates established by the Regulatory Authority at the end of 1999. For further information on the new domestic

interconnection rates, see “Description of Business—Regulation.” These new lower rates will slow down, to some extent, any further revenue growth that may occur in 2000 due to growth in the volume of domestic interconnection traffic carried on Deutsche Telekom’s network.

Revenues from international interconnection services remained essentially constant in 1999, as growth in traffic and the effect of exchange rate movements offset a decline in settlement rates.

In 1998, revenues from domestic interconnection services increased considerably due to the large number of competitors that connected with Deutsche Telekom’s network for the first time and, to a lesser extent, due to continued growth in fixed-to-mobile interconnection. Revenues from international interconnection services decreased by 14.9 percent in 1998, despite strong growth in traffic, due to a decline in international settlement rates. Exchange rate movements had no significant effect on revenues from international interconnection services in that year.

**Data Communications.** The main sources of revenue for data communications are the installation and monthly rental charges for domestic and international leased lines (including digital and analog leased lines), charges for data transmission services, and charges for managed networks and IT solutions customized to meet specific customer needs. The following table shows revenues from data communications for the periods indicated.

	<u>Year ended</u> <u>December 31,</u> <sup>(1)</sup>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Managed Networks / ATM / IP (2).....	1,920	1,546	1,062	24.2	45.6
Frame Relay / X.25 .....	108	121	191	(10.7)	(36.6)
Leased lines, others.....	<u>800</u>	<u>869</u>	<u>1,092</u>	(7.9)	(20.4)
<b>Data communications .....</b>	<b><u>2,828</u></b>	<b><u>2,536</u></b>	<b><u>2,345</u></b>	<b>11.5</b>	<b>8.1</b>

(1) Beginning in 1999, revenues of Deutsche Telekom’s subsidiary DeTeLine, previously accounted for under “other services”, are shown under “data communications”. Prior year figures have been restated in the amount of EUR 29 million for 1998 and EUR 19 million for 1997 to reflect this change.

(2) Excluding T-Online.

The most significant contributors to data communications revenues are managed networks, ATM and IP as well as leased lines for data communications and Deutsche Telekom’s packet switched data transmission service based on the X.25 protocol.

In 1999, data communications revenues increased by 11.5 percent. This growth primarily reflects strong revenue growth in managed networks that resulted from an increase in the number of managed network customers, which was offset to some extent by a decrease in prices induced by competition. A decrease in revenues from X.25 data communications products was largely due to customer’s migration to managed networks. ATM- and IP-based services are growing in importance as components of managed networks.

In 1998, data communications revenues increased by 8.1 percent, largely due to increased revenues from managed networks that resulted from increased marketing of these networks. The increase in managed network revenues was, however, partially offset by a decrease in traditional data communications revenues that resulted from competitive pressures on prices and from customer migration to higher value-added communications systems solutions.

**Mobile Communications.** Deutsche Telekom’s mobile communications business area primarily reflects the activities of T-Mobil, Deutsche Telekom’s German mobile communications subsidiary. Revenues of Deutsche Telekom’s consolidated international mobile communications subsidiaries currently are reflected under the segment “International”. The mobile communications business area generates revenues from installation charges, monthly access charges and call charges paid by direct subscribers, charges paid by independent service providers, and the sale of terminal equipment for mobile communications. Independent service providers purchase mobile communications services from T-Mobil at a discount, resell those services



and bill subscribers directly at rates they set independently. Traffic charges (including those paid by independent service providers) accounted for approximately 69.3 percent of T-D1 revenues, which consists of traffic charges, setup and monthly access charges, but exclude revenues from sales of digital handsets in 1999 as compared to 68.6 percent in 1998. Monthly access charges and initial connection fees together accounted for approximately 30.7 percent of those revenues in 1999 and 31.4 percent in 1998. Tariffs for subscribers serviced directly by T-Mobil are set by T-Mobil, although they would be subject to possibly retroactive regulatory review if T-Mobil were deemed to have a dominant position in a relevant market, as described under the heading “Description of Business—Regulation—Special Requirements Applicable to Market-Dominant Providers”.

The following table shows information concerning the development of revenues from mobile communications.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Initial connection fees .....	36	36	43	0.0	(16.3)
Mobile products .....	510	320	295	59.4	8.5
Monthly access charges .....	1,015	822	756	23.5	8.7
Call charges					
T-D1 .....	2,218	1,639	1,173	35.3	39.7
T-C-Tel .....	73	133	188	(45.1)	(29.3)
Other mobile communications services .....	<u>67</u>	<u>111</u>	<u>118</u>	(39.6)	(5.9)
<b>Mobile Communications .....</b>	<b><u>3,919</u></b>	<b><u>3,061</u></b>	<b><u>2,573</u></b>	<b>28.0</b>	<b>18.9</b>

Revenues from mobile communications increased in 1999 and 1998 as a result of continued growth in the number of T-D1 subscribers. The average number of T-D1 subscribers rose by 63.9 percent in 1999 and 58.4 percent in 1998, in part because of the continuing positive response to the private customer oriented tariff options offered by Deutsche Telekom to attract new customer groups. Revenue growth did not keep pace with subscriber growth, however, due in part to an increase in the proportion of subscribers that use prepaid tariff packages and due in part to a decline in revenues per minute, both of which contributed to a decrease in revenues per subscriber. Overall T-Mobil revenues were adversely affected by expected declines in the number of subscribers to Deutsche Telekom’s analog T-C-Tel mobile service and by special terms offered to T-C-Tel customers to encourage migration to T-D1 service. Revenues from sales of mobile handsets, which are included in other mobile communications services and products, increased by 59.4 percent in 1999 to EUR 510 million and by 8.5 percent in 1998 to EUR 320 million due to the continued strong subscriber growth in the mobile communications market. Mobile handsets generally are subsidized in order to create attractive package offers for new customers.

**Broadcasting and Broadband Cable.** Revenues from broadband cable are generated principally from installation charges and monthly subscription fees paid by cable television customers directly served by Deutsche Telekom, and transmission charges paid by local cable companies in which Deutsche Telekom holds at least a minority equity stake or by other private cable operators. In addition, revenues are generated from cable transmission fees paid by television and radio stations for transmitting their programs via Deutsche Telekom’s cable network. Broadcasting revenues result from fees paid by television and radio stations for the use of transmission capacity. The following table provides information concerning revenues generated by broadcasting and broadband cable.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro, except as noted)</u>			<u>(% change)</u>	
Broadband cable .....	1,441	1,353	1,178	6.5	14.9
Broadcasting .....	<u>476</u>	<u>451</u>	<u>419</u>	5.5	7.6
<b>Broadcasting and broadband cable.....</b>	<b><u>1,917</u></b>	<b><u>1,804</u></b>	<b><u>1,597</u></b>	<b>6.3</b>	<b>13.0</b>
Average number of cable television subscribers (in thousands of households) (1).....	17.8	17.5	17.0	1.7	2.9

- (1) Includes households connected through operators of private broadband distribution equipment and master antenna television systems.

In 1999, broadband cable experienced a moderate increase in revenues, due in part to growth in the average number of cable television subscribers and in part to an improvement in billing procedures. This increase in revenues was also due in part to the fact that an increase in monthly subscription rates for cable television as of November 1997 did not immediately result in higher effective rates for all subscribers because a number of subscribers had prepaid for cable television services prior to November 1997. As a result, these customers did not begin paying at the higher rates until the end of the period covered by their prepayments. In 1998, the increase in broadband cable revenues was principally due to the effect of the increase in the monthly subscription fees which came into effect in November 1997 and due to a modest increase in the average number of cable subscribers in 1998.

Deutsche Telekom is currently pursuing the sale of majority interests in nine regional companies within Germany that are to be formed during the year 2000, in which the core of Deutsche Telekom's cable business will be placed. Agreements to sell majority ownership of two of the regional companies have been concluded. As majority interests in these businesses are sold, revenues of these regional companies will cease to be consolidated in the financial statements of the Deutsche Telekom group, and these companies will instead be accounted for at equity.

**Terminal Equipment.** Revenues from terminal equipment consist of revenues from the sale and rental of terminal equipment for the fixed network. The following table provides information on the development of these revenues over the last three years.

	<u>Year ended</u> <u>December 31,<sup>(1)</sup></u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Sales revenues.....	458	483	482	(5.2)	0.3
Leasing revenues .....	749	899	1,035	(16.7)	(13.1)
<b>Terminal equipment .....</b>	<b><u>1,207</u></b>	<b><u>1,382</u></b>	<b><u>1,517</u></b>	<b>(12.7)</b>	<b>(8.9)</b>

- (1) In 1999, revenues relating to maintenance services are accounted for under "other services". To reflect this change, revenues of EUR 120 million for 1998 and EUR 129 million for 1997 have been transferred to "other services".

Revenues from terminal equipment declined in 1999 for the third consecutive year. Revenues fell considerably in 1999 as a result of a further reduction in the number of leasing contracts. In the terminal equipment sales business, revenues decreased largely due to decreases in prices for terminal equipment. See "Description of Business—Supply and Service of Terminal Equipment".

In 1998, revenues from terminal equipment were also negatively affected by the streamlining of the product portfolio and by a decline in leasing revenues, particularly from analog terminal equipment. These effects were partially offset by an increase in sales revenues, particularly from sales of PBX and terminal equipment for ISDN lines.

**Value-Added Services.** Revenues from value-added services include revenues from public telephones, toll free lines, information services, telephone directory publishing, and other directory and operator services. The following table sets forth revenues from value-added services for the periods indicated.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Value-added services.....	1,903	2,051	2,001	(7.2)	2.5

Decreases in revenues from public telephones and operator services accounted for most of the decline in revenues from value-added services in 1999, although these decreases were partially offset by increased

revenues from information services. Revenues from public telephones decreased in 1999 because Deutsche Telekom reduced the number of public telephones as part of a site-optimization program and reduced tariffs for public telephones, largely to adjust for falling tariffs for mobile phone calls, which displace public phones. The average number of public telephones declined from 157,000 in 1998 to 138,000 in 1999. Revenues from operator assisted services, such as directory services, also decreased in 1999 due to increased competition and also due in part to the increased availability of Deutsche Telekom online directories.

In 1998, revenues from value-added services increased as a result of the growth in traffic and revenues from toll-free and information services lines. In addition, revenues from value-added services benefited from price adjustments for operator services that became effective in November 1997. These effects were partially offset, however, by declining revenues from public telephones. The number of public telephones declined from 163,000 in 1997 to 157,000 in 1998 as part of the site-optimization program.

**Other Services.** Revenues from other services include revenues generated from multimedia communications, especially T-Online. They also include revenues from support services and ancillary activities performed by Deutsche Telekom. In 1998, revenues resulting from billing on behalf of competitors were recorded under “other services”. In 1999, these amounts were no longer recorded under this line item, and 1998 figures have been restated to eliminate these amounts. For further information on this topic, see “—Results of Operations—Net Revenues.”

	<u>Year ended</u> <u>December 31,(1)</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Multimedia platform .....	412	294	215	40.1	36.7
Multimedia-applications .....	135	1	2	13400.0	(50.0)
Other .....	<u>575</u>	<u>477</u>	<u>365</u>	20.5	30.7
<b>Other services .....</b>	<b><u>1,122</u></b>	<b><u>772</u></b>	<b><u>582</u></b>	<b>45.3</b>	<b>32.6</b>

(1) In 1999, revenues of Deutsche Telekom’s subsidiary DeTeLine are no longer shown under “other services”. These revenues, in the amount of EUR 29 million for 1998 and EUR 19 million for 1997, are now shown under “data communications”. Revenues relating to maintenance services of EUR 120 million for 1998 and EUR 129 million for 1997 were shown under “terminal equipment” in 1998. In 1999, maintenance services are accounted for under “other services”. As of January 1, 1999, revenues from billing for other network competitors of EUR 0.5 billion are no longer shown as revenues from “other services” and goods and services purchased. As of January 1, 1999, T-Online does not show under revenues and services purchased amounts billed for content providers (EUR 53 million for 1998 and EUR 34 million for 1997). Prior year figures have been restated to reflect these changes.

In both 1999 and 1998, the revenue increase from other services was principally due to continued revenue growth at T-Online, shows as part of the line item “multimedia platform”, which increased its revenues from EUR 189 million in 1997 to EUR 252 million in 1998 and to EUR 412 million in 1999. T-Online revenues for 1998 and 1997 that were reported in prior years were higher than the figures reported for those years in 1999 because amounts billed for content providers are no longer included in T-Online revenues in 1999, and figures reported in prior years have been restated to reflect this change. In both 1999 and 1998, revenues from T-Online services principally benefited from growth in the number of subscribers, although this growth was partially offset by price reductions implemented by T-Online. The increase in other revenues in both years is also partially attributable to increased revenues from billing services for our competitors, which represents the difference between the amounts collected for and the amounts paid over to our competitors in accordance with applicable regulations. A significant increase in revenues from the sale of multimedia applications to business customers also contributed to the increase in other services revenues from 1998 to 1999.

**International.** Revenues from international business consists of the revenues of Deutsche Telekom’s foreign subsidiaries. These principally reflect the revenues of MATÁV and, in 1999, the revenues of max.mobil. and One 2 One, which were included for the first time in Deutsche Telekom’s group of consolidated companies in 1999. max.mobil., which was first consolidated as of January 1, 1999, contributed EUR 811 million to

consolidated revenues in 1999, while One 2 One, which was first consolidated on October 1, 1999, contributed EUR 544 million.

MATÁV's contribution to Deutsche Telekom's consolidated revenues increased to EUR 1.5 billion in 1999 from EUR 1.4 billion in 1998 and EUR 1.2 billion in 1997. In each year, the increases were primarily due to the increase in access lines and mobile subscribers in Hungary.

***Changes in Inventories and Other Own Capitalized Costs***

Deutsche Telekom's statement of income is prepared on the total-cost basis typically used in Germany. Costs to be capitalized and expensed in future periods, such as increases or decreases in inventories and interest and other costs capitalized on construction projects, are classified in the statement of income as revenues. A corresponding amount is included in expenses such that the net effect is zero. The following table sets forth information concerning the changes in inventories and other own capitalized costs.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Increase (decrease) in inventories of finished products and work in process and other own capitalized costs .....	947	990	1,514	(4.3)	(34.5)

Own capitalized costs, which include mainly planning and construction costs incurred, decreased by approximately EUR 218 million from 1998 to 1999. The effect of this decrease in own capitalized costs was, however, largely offset by an increase in inventory resulting primarily from the change in composition of the group (particularly the acquisition of One 2 One) and increased inventories of Deutsche Telekom's research and development and real estate subsidiaries.

The relatively high level of inventories and own capitalized costs in 1997 as compared to 1998 reflected own capitalized costs relating to construction activity associated with the digitization of Deutsche Telekom's network. The digitization of the network was completed in 1997, and, as a result, own capitalized costs were significantly lower in 1998. This decrease in own capitalized costs was partially offset by an increase in inventories in 1998.

### ***Other Operating Income***

Other operating income consists of tax refunds, reversals of allowances and accruals, cost reimbursements, gains from sales of assets and other miscellaneous items. The following table provides information concerning other operating income.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Other operating income .....	1,871	2,069	1,915	(9.6)	8.0

Certain VAT refunds obtained pursuant to the Value-Added Tax Act (*Umsatzsteuergesetz*) are included in other operating income. Deutsche Telekom is entitled to recover a portion of the VAT incurred on assets purchased and placed into service before January 1, 1996, the date on which Deutsche Telekom became fully subject to VAT. Accordingly, Deutsche Telekom recognized VAT refunds of EUR 379 million in 1999, EUR 655 million in 1998, EUR 664 million in 1997 and EUR 775 million in 1996. Deutsche Telekom expects to reclaim a total of approximately EUR 2.7 billion over 10 years (from 1996 onwards), including the EUR 2.5 billion reclaimed since 1996. VAT paid on construction in progress and inventory purchased prior to January 1, 1996 was booked as expense in the year paid. Since January 1, 1996, the VAT paid in prior years with respect to those assets has been recognized as operating income at the time those assets were placed into service.

In 1999, other operating income decreased by 9.6 percent, partly due to the decrease in VAT refund recognized in 1999 and partly due to the effect of a one-time disposition of non-current assets in 1998. The overall decline in other operating income was partially offset by income from a national roaming agreement between T-Mobil and VIAG Interkom and by an increase in reversals of allowance and accruals.

In 1998, other operating income increased by 8.0 percent. This increase resulted principally from a one-time disposition of noncurrent assets of EUR 146 million related to the capital restructuring of Deutsche Telekom's satellite investment SES Société Européenne des Satellites S.A. Other operating income also reflected a reduction of reversals of accruals of EUR 87 million as well as an increase in reversals of valuation adjustments of accounts receivable and doubtful accounts.

### ***Total Operating Costs and Expenses***

The following table shows Deutsche Telekom's total operating costs and expenses broken down by major components.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Goods and services purchased .....	8,404	6,223	6,171	35.0	0.8
Personnel costs.....	9,210	9,170	9,377	0.4	(2.2)
Depreciation and amortization.....	8,466	9,037	9,509	(6.3)	(5.0)
Other operating expenses.....	<u>6,135</u>	<u>5,385</u>	<u>5,195</u>	13.9	3.7
<b>Total operating costs and expenses .....</b>	<b><u>32,215</u></b>	<b><u>29,815</u></b>	<b><u>30,252</u></b>	<b>8.0</b>	<b>(1.4)</b>

**Goods and Services Purchased.** The following table provides information concerning goods and services purchased.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Goods purchased.....	2,625	1,571	1,508	67.1	4.1
Services purchased					
Domestic network access charges.....	1,585	968	801	63.7	20.8
International network access charges.....	<u>1,626</u>	<u>1,408</u>	<u>1,621</u>	15.5	(13.1)
Total network access charges.....	3,211	2,376	2,422	35.1	(1.9)
Other services purchased .....	<u>2,568</u>	<u>2,276</u>	<u>2,241</u>	12.8	1.6
<b>Total goods and services purchased .....</b>	<b><u>8,404</u></b>	<b><u>6,223</u></b>	<b><u>6,171</u></b>	<b>35.0</b>	<b>0.8</b>

The increase in goods purchased of EUR 1.1 billion in 1999 resulted primarily from the consolidation of max.mobil. and One 2 One for the first time in 1999 and from increased purchases of mobile handsets for resale. In 1998, goods purchased increased by EUR 63 million. This increase was largely attributable to increased purchases of mobile handsets for resale.

Domestic network access charges rose in 1999 by 63.7 percent. This increase resulted from the growing number of calls initiated by Deutsche Telekom's fixed network and mobile customers and terminated in the networks of other fixed and mobile network operators in Germany. In 1998, the increase in domestic network access charges resulted mainly from increasing numbers of calls placed from Deutsche Telekom's fixed network to customers of other German mobile communications operators.

International network access charges increased in 1999 by EUR 218 million, primarily due to increased roaming charges for calls made by mobile phone subscribers of T-Mobil, max.mobil. and MATÁV to foreign telephone network operators.

International network access charges declined in 1998 by EUR 213 million principally as a result of the continued decline in international settlement rates and from a decrease in Deutsche Telekom's international outgoing traffic. These effects were partially offset by higher expenses for mobile roaming services.

Other services purchased consist of telecommunications hardware and software, building and other maintenance expenses, energy and utility costs and costs for information services provided. In 1999, increased expenses for information services provided accounted for most of the 12.8 percent increase in other services purchased. A corresponding increase in revenues from information services was recorded as revenues of the "value added services" business area. Maintenance expenses also increased in 1999 largely due to preparations for year 2000 risks. In 1998, expenses for other services purchased increased by EUR 35 million, also primarily as a result of increased costs for information services provided and increased maintenance expenses relating to the preparations for the year 2000 and the introduction of the euro.

**Personnel Costs.** The following table provides information concerning Deutsche Telekom's personnel costs and the annual percentage changes in those costs.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Wages and salaries.....	6,520	6,477	6,624	0.7	(2.2)
Other personnel costs (1).....	<u>2,690</u>	<u>2,693</u>	<u>2,753</u>	(0.1)	(2.2)
<b>Total personnel costs .....</b>	<b><u>9,210</u></b>	<b><u>9,170</u></b>	<b><u>9,377</u></b>	<b>0.4</b>	<b>(2.2)</b>

(1) Other personnel costs consist primarily of social security costs, which are fixed by law generally as a percentage of wages and salaries, and of pension costs, principally for civil servant employees.

For several years, Deutsche Telekom has been taking measures to reduce its personnel costs, primarily through the implementation of a workforce reduction program. In 1999, Deutsche Telekom made further progress with its workforce reduction program. For 1999, it employed an average number of 175,160 full-time employees in those companies that were part of the consolidated Deutsche Telekom group at the end of 1994, which was 10,580 fewer than the average number employed by those companies in 1998. Largely as a result of these personnel reductions, the average number of employees in the consolidated Deutsche Telekom group as a whole decreased to 204,360 in 1999 from 209,539 in 1998, despite the effect of the first consolidation of max.mobil. and One 2 One. The consolidation of max.mobil. starting as of January 1, 1999 accounted for an increase of approximately 2,500 in the average number of full-time employees of the consolidated Deutsche Telekom group during 1999, while the consolidation of One 2 One starting in October 1999 accounted for an increase in the average of approximately 1,000. As a result of the consolidation of max.mobil. and One 2 One, the consolidated Deutsche Telekom group as a whole, including companies first consolidated after 1995, had 203,268 employees, including trainees, as of December 31, 1999, an increase of 0.2 percent as compared to year-end 1998.

Personnel costs of Deutsche Telekom increased by 0.4 percent or EUR 40 million in 1999, as the effect of consolidating max.mobil. and One 2 One for the first time in 1999 partially offset the effect of workforce reductions in the companies that were part of the Deutsche Telekom group prior to 1999. The remainder of the increase in personnel costs resulted in part from a 3.0 percent increase in wages and salaries under collective bargaining agreements in Germany, which came into effect on April 1, 1999, and a remuneration adjustment related to salaries in eastern Germany. The growth in personnel costs was also attributable to age-related salary increases and to continued review of salaries in some areas to bring them in line with market conditions. Furthermore, the fixed annual contributions to a special fund for civil servant pensions, which was not linked to the number of employees covered in 1999, did not allow personnel cost to decrease in line with employee reduction.

In 1998, as a result of a reduction in the average number of full-time employees, personnel costs of Deutsche Telekom decreased by 2.2 percent or EUR 207 million. Personnel costs per employee increased, however, by 3.9 percent in 1998. This increase resulted in part from a 1.5 percent increase in wages and salaries under collective bargaining agreements, which came into effect on January 1, 1998, and a remuneration adjustment related to salaries in eastern Germany. The growth in personnel cost per employee was also attributable to the age-related salary increases and the review of salaries in some areas to bring them in line with market conditions. In addition, fixed annual contributions to a special fund for civil servant pensions, as mentioned above, together with a decrease in average number of employees, resulted in a nominal increase in personnel costs per employee in 1998.

Under agreements with the trade unions, differentials between salaries in western Germany and eastern Germany are to be gradually reduced until parity is reached in the year 2000. The cost of eliminating these differentials, which relate to less than 20 percent of Deutsche Telekom's workforce, has been and is expected to be less than EUR 61 million per year through the end of 2000. Wages and salaries for employees in eastern Germany increased on October 1, 1998 to 96 percent of the level paid in western Germany and again on October

1, 1999 to 100 percent of the western German level. The reduction of salary differentials between eastern and western Germany will not have any effect on personnel costs beyond 2000.

Under the law governing the privatization of Deutsche Telekom, Deutsche Telekom is required to make annual contributions to a special pension fund established to fund pension obligations to its civil servant employees. Through the end of 1999, Deutsche Telekom was obligated to make annual contributions of approximately EUR 1.5 billion. Beginning in the year 2000, however, Deutsche Telekom is obligated to make annual contributions equal to 33 percent of the salaries of its then-current civil servant employees (including the imputed salaries of civil servant employees on unpaid leave). For further information in this regard, see “Description of Business—Employees—Civil Servants”. Deutsche Telekom therefore expects that its pension costs will start declining beginning in the year 2000.

Several years ago, Deutsche Telekom announced its intention to reduce its workforce by the end of the year 2000 by approximately 60,000 full-time equivalent employees (excluding employees of subsidiaries first consolidated after January 1, 1995) from 1994 year-end levels. The then expected total cost of these staff reduction measures (EUR 1.7 billion) was recognized as an expense in the years ended December 31, 1994, 1995 and 1996. The table below sets forth the development of provisions for these costs for the years ended December 31, 1999 and December 31, 1998.

	<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>
	(millions of euro)	
Accrual/payable, beginning of year .....	470	774
Payments made .....	<u>(209)</u>	<u>(304)</u>
<b>Accrual/payable, end of year .....</b>	<b><u>261</u></b>	<b><u>470</u></b>

Deutsche Telekom’s provisions for restructuring costs cover employees that leave under voluntary separation agreements. Through December 31, 1999, a total of 57,200 full-time equivalent positions (excluding positions at MATÁV, max.mobil. and One 2 One) have been eliminated. Of the total planned reduction of 60,000 employees, Deutsche Telekom estimates that approximately 38,300 had left and will leave under voluntary separation agreements and the remainder under early retirement of civil servants and normal attrition.

**Depreciation and Amortization.** The following table sets forth depreciation and amortization and the percentage changes in this line item.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			( percent change)	
Depreciation and amortization .....	8,466	9,037	9,509	(6.3)	(5.0)

In 1999, depreciation and amortization decreased by EUR 571 million. This decrease is largely due to an extension of the depreciation periods of outside plant network, which resulted from a new estimate of the physical and economic useful life of the equipment. This extension gave rise to a decrease in depreciation of EUR 0.8 billion from 1998 to 1999. The effect of this extension was partially offset, however, by the consolidation of max.mobil. and One 2 One for the first time in 1999, which resulted in an increase of EUR 0.4 billion in depreciation and amortization, particularly amortization of goodwill. Depreciation and amortization relating to One 2 One will be higher in 2000 than in 1999, as it will be included in the consolidated Deutsche Telekom group for a full year. One 2 One goodwill amortization is denominated in Pound Sterling and therefore will be affected by exchange rate movements. The implementation of Deutsche Telekom’s internationalization strategy is likely to result in further increases in goodwill amortization in 2000 and future years. For further information in this regard, see “Description of Business—International.”

An increase in net additions to intangible assets also partially offset the overall decrease in depreciation and amortization in 1999. This increase in net additions to intangible assets was largely attributable to increased capital expenditures for new software and to the fee that the Regulatory Authority required Deutsche Telekom to



pay in October 1999 for telephone number blocks allocated to Deutsche Telekom prior to January 1, 1998. Deutsche Telekom has challenged the determination of the Regulatory Authority that this fee is payable. For further information regarding this fee, see “Description of Business—Regulation” and “Legal Proceedings.”

In 1998, depreciation and amortization decreased by EUR 472 million, principally as a result of the completion at the end of 1997 of the shortening of the depreciation periods and corresponding acceleration of the depreciation of Deutsche Telekom’s analog exchanges and transmission equipment. This effect was partially offset by increased depreciation and amortization for computer hardware and software.

**Other Operating Expenses.** Total other operating expenses increased by 13.9 percent in 1999 and by 3.7 percent in 1998. Other operating expenses increased in 1999 as decreases in losses on disposition of noncurrent accounts, in losses on accounts receivable and provision for doubtful accounts and in provisions were not sufficient to offset increases in marketing expenses, commissions and legal and consulting fees and in other expenses.

The following table sets forth other operating expenses broken down by major components and the percentage changes in those components.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Marketing expenses, advertising gifts, commissions, legal and consulting fees .....	2,002	1,520	1,297	31.7	17.2
Losses on disposition of noncurrent assets.....	629	727	614	(13.5)	18.2
Losses on accounts receivable and provision for doubtful accounts .....	514	656	407	(21.6)	61.2
Provisions .....	238	298	531	(20.1)	(43.9)
Other expense items.....	2,752	2,184	2,346	26.0	(6.9)
Of which:					
Postal charges, postal and banking services and administrative expenses .....	635	596	633	6.5	(5.8)
Employee-related costs (including travel and temporary employment expenses).....	591	562	554	5.2	1.5
Rental and leasing expenses.....	513	553	536	(7.2)	3.2
Other miscellaneous expenses .....	<u>1,013</u>	<u>473</u>	<u>623</u>	114.2	(24.1)
<b>Total other operating expenses.....</b>	<b><u>6,135</u></b>	<b><u>5,385</u></b>	<b><u>5,195</u></b>	<b>13.9</b>	<b>3.7</b>

In 1999, marketing expenses, advertising gifts, commissions, and legal and consulting fees increased by 31.7 percent, primarily as a result of increased marketing expenses and commissions. Marketing expenses of max.mobil. and One 2 One, which were consolidated for the first time in 1999, accounted for nearly half of this increase. The remainder of this increase is largely attributable to the mobile communications business area, which incurred significantly increased advertising expenses for T-D1 products, increased commissions for customer acquisition and additional expenses to encourage analog mobile phone subscribers to migrate to the digital T-D1 service.

In 1998, marketing expenses, commissions, and legal and consulting fees increased primarily as the result of promotional programs and advertising related to the introduction of Deutsche Telekom’s mobile tariff offer TellyLocal and the XtraCard. These increases were in part offset by non-recurrence in 1998 of expenses related to a 1997 incentive program for ISDN.

Because of Deutsche Telekom’s large noncurrent asset base and the rapidly changing technological environment in which it operates, parts of its noncurrent asset base become obsolete each year in the ordinary course of business. In 1999, losses on the disposition of noncurrent assets were 13.5 percent lower than in 1998, which resulted from higher scrapping of outside plant and other equipment in 1998, after the completion of the digitization of the network in 1997. In 1998, the scrapping of outside plant resulted in EUR 310 million of losses on disposition of noncurrent assets.

In 1999, losses on accounts receivable and provisions for doubtful accounts decreased as compared to 1998 primarily due to the absence in 1999 of unusual factors that had contributed to an increase in 1998. In 1998, losses on accounts receivable and provisions for doubtful accounts increased due to valuation adjustments of receivables which had been outstanding for some time and due to the fact that Deutsche Telekom wrote off receivables related to its Asian investments.

Provisions declined again in 1999, as compared to 1998, due to a perceived reduced need for provisions against risks in associated companies. Provisions in 1998 declined significantly, having been unusually high in 1997 due to a one-time effect. Accruals for costs were made in 1997 with respect to the reduction in Deutsche Telekom's space requirements resulting from the digitization of Deutsche Telekom's network and workforce reductions. These costs related to reconstruction costs necessary to adapt buildings to changes in use and to associated real estate costs.

Other expense items increased by 26.0 percent in 1999. Increases in postal charges, postal and banking services and administrative expenses as well as employee related-cost were due to an increased volume in mailings and in travel and transportation expenses. They were partially offset by decreased rental and leasing expenses. Other expense items declined by 6.9 percent in 1998 as a result of decreases in expenses for postal and banking services and other miscellaneous expenses.

Miscellaneous expenses shown in the table above include foreign currency transaction losses of EUR 275 million for 1999, EUR 105 million for 1998 and EUR 114 million for 1997. See note 7 to the consolidated financial statements. These losses were partially offset by foreign currency transaction gains of EUR 91 million for 1999, EUR 37 million for 1998 and EUR 12 million for 1997 included in "other operating income". These gains and losses result principally from exchange rate fluctuations between the dates when payables or receivables are booked in a foreign currency by Deutsche Telekom AG or by one of its subsidiaries and the dates on which corresponding amounts are actually debited or credited to bank accounts of Deutsche Telekom AG or one of its subsidiaries. The principal currencies that give rise to this type of gains and losses in the financial statements of Deutsche Telekom are U.S. Dollars and Hungarian forints. As a result of the acquisition of One 2 One, Pound Sterling may also give rise to this type of gains and losses in future periods. For further information on foreign currency translation, see "Summary of Significant Accounting Principles—Foreign currency translation" in the notes to the consolidated financial statements.

### ***Financial Income (Expense), Net***

The following table provides the components of Deutsche Telekom's net financial expense and annual percentage changes.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Results related to companies accounted for under the equity method .....	(265)	(382)	(778)	30.6	50.8
Other investments .....	(78)	56	31	(239.3)	78.7
Income (loss) from financial activities.....	(343)	(326)	(747)	(5.2)	56.2
Net interest expense .....	(2,546)	(2,962)	(3,256)	14.0	9.0
<b>Financial income (expense), net .....</b>	<b>(2,889)</b>	<b>(3,288)</b>	<b>(4,003)</b>	<b>12.1</b>	<b>17.8</b>

**Net Interest Expense.** Deutsche Telekom's net indebtedness increased during 1999 by EUR 2 billion to EUR 42 billion at year-end 1999 after having decreased by EUR 5 billion during 1998 to EUR 40 billion at year-end 1998. The increase in debt in 1999 is a result of the increase in liabilities to banks, mainly due to the changes in the composition of the Deutsche Telekom group resulting from the acquisition of One 2 One. Adjusted for this change in composition of the group, Deutsche Telekom reduced its debt by EUR 2 billion in 1999. In large part due to the reduction in debt during 1999 and 1998, net interest expense decreased by EUR 416 million in 1999 and by EUR 294 million in 1998. The effective weighted average interest rate

applicable to Deutsche Telekom's bonds was 7.5 percent in 1999 and 7.6 percent in both 1998 and 1997. Increased interest revenue also contributed significantly to the decline in net interest expense in 1999 and 1998.

***Income (Loss) from Financial Activities.*** Income (loss) from financial activities includes Deutsche Telekom's share of the income or losses on investments accounted for using the equity method. In addition, it includes the amount of annual amortization of goodwill, the difference between the original purchase price of these investments and Deutsche Telekom's share of the shareholders' equity. Income and loss from other investments consists primarily of dividends received from Deutsche Telekom's investments in various satellite service providers and from Sprint, as well as risk provisions for write-downs of the carrying amounts of other investments.

Deutsche Telekom's share of losses from investments in associated companies decreased by EUR 117 million in 1999. This decrease resulted principally from a reduction of EUR 75 million in goodwill amortization of Satelindo, due to the fact that goodwill of Satelindo was completely written off during 1998, and from a share of EUR 59 million in the profits of the Russian telecommunications company MTS, in which Deutsche Telekom acquired a significant stake in 1999. A decrease of EUR 33 million in goodwill amortization at TRI, which was attributable to reduced nonscheduled amortization, and improved financial results at Asiacom also contributed to the decrease in Deutsche Telekom's share of losses from investments in associated companies. These factors were, however, offset to some extent by a decrease in gains from other investments, decreased reversals of accruals for other investment and a decrease in Deutsche Telekom's share of gains in Satelindo. Deutsche Telekom's share of losses from Atlas (through which Deutsche Telekom and France Telecom held their interests in Global One) was EUR 220 million in 1999, relatively unchanged from 1998.

In 1998, Deutsche Telekom's share of losses from investments in companies accounted for using the equity method, including risk provisions for write-downs of equity book values and related goodwill amortization, decreased by EUR 396 million. In 1998, Deutsche Telekom's share of loss related to Atlas (through which Deutsche Telekom and France Telecom held their interests in Global One) amounted to EUR 221 million, EUR 33 million more than in 1997. The combined effect of this increased loss and the absence of further write-downs of Atlas' equity book value increased losses by EUR 23 million. In 1998, Deutsche Telekom's Asian ventures, particularly TRI, Asiacom and Satelindo, generated losses from financial activities of EUR 171 million, a decrease of EUR 295 million from the 1997 level. The 1998 decrease in loss from financial activities includes principally a EUR 44 million decrease in nonscheduled goodwill amortization, a EUR 37 million decline in risk provisions (net) for the write-down of equity book values and a EUR 145 million decrease in proportionate losses. By reducing the equity book value of these ventures to EUR 143 million by year-end 1998, Deutsche Telekom had reduced its risk exposure with respect to its Asian ventures significantly. Outside of Asia, risk provisions of EUR 30 million which Deutsche Telekom made in previous years with respect to its investments in DETECON Deutsche Telepost Consulting GmbH and EUKOM Gesellschaft für Telekommunikations-Mehrwertdienste mbH were reversed in 1998 and no further losses were incurred. The combined positive effect on results related to companies accounted for under the equity method amounted to EUR 71 million.

## Taxes

The following table presents information concerning income taxes and other taxes.

	<u>Year ended</u> <u>December 31</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
	<u>(millions of euro)</u>		
Income taxes .....	1,380	2,477	1,512
Other taxes .....	40	177	332
<b>Taxes .....</b>	<b><u>1,420</u></b>	<b><u>2,654</u></b>	<b><u>1,844</u></b>

Income taxes decreased in 1999 but increased in 1998. In each year, changes in income taxes correlated with changes in income before taxes. Furthermore, income taxes reflect differences in accounting and valuation between the statements for financial reporting purposes and the statements for tax purposes. The decrease in other taxes in 1999 resulted primarily from a refund of wage taxes withheld in a prior period and a reversal of an accrual for value-added tax, which were partially offset by the establishment of an accrual for withholding tax on wages. The decrease in other taxes in 1998 resulted principally from the fact that the trade capital tax was no longer imposed in 1998.

Deutsche Telekom's effective income tax rate (income taxes as a percentage of pre-tax income) was approximately 48 percent in 1999, 50 percent in 1998 and 45 percent in 1997. The statutory income tax rate for Deutsche Telekom was approximately 52 percent in 1999 and 57 percent in 1998 and 1997, including corporate income taxes (assuming that earnings are not distributed), trade income taxes (using a German national average rate) and the solidarity surcharge on corporate income tax (*Solidarit tszuschlag*). The differences between the statutory rate and the effective rate relate primarily to the lower income tax rate of 30 percent on the proposed dividend of EUR 1.9 billion for 1999 and the dividend of EUR 1.7 billion for each of 1998 and 1997, differentials of tax rates on income taxable outside of Germany, temporary differences and losses for which deferred taxes are not recorded under German GAAP, and, in 1997, tax effects resulting from the restructuring of companies.

## Liquidity and Capital Resources

The following table provides information concerning Deutsche Telekom's cash flows.

	<u>Year ended</u> <u>December 31</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
	<u>(millions of euro)</u>		
Net cash provided by operating activities .....	9,588	13,491	11,576
Net cash used for investing activities .....	(18,684)	(7,511)	(5,404)
Net cash provided by (used for) financing activities .....	7,965	(6,797)	(7,035)
Effect of foreign exchange rate changes on cash and cash equivalents .....	(55)	6	(3)
<b>Net decrease in cash and cash equivalents (1) .....</b>	<b><u>(1,186)</u></b>	<b><u>(811)</u></b>	<b><u>(866)</u></b>
Cash and cash equivalents, at beginning of year .....	2,064	2,875	3,741
Cash and cash equivalents, at end of year .....	878	2,064	2,875

(1) Cash and cash equivalents include cash and short-term investments with original maturities of three months or less.

## Liquidity

**Net Cash Provided by Operating Activities.** Deutsche Telekom's primary source of liquidity is cash generated from operations. Net cash provided by operating activities decreased by EUR 3.9 billion in 1999 primarily as a result of a decline in net income, which was particularly driven by the decline in revenues from fixed line telephone communications. In addition, net cash from operating activities has been negatively affected by a change in working capital, increased tax payments in excess of taxes recognized in the statement of income and expenditures relating to Deutsche Telekom's second public offering of shares in 1999. The change in

working capital was particularly influenced by an increase in receivables, which was partially offset by an increase in liabilities.

In 1998, net cash provided by operating activities increased by EUR 1.9 billion as compared to the prior year. The increase was in part attributable to a higher inflow of cash from net revenues. Net cash provided by operating activities was also favorably influenced by the change in the ratio of non-cash expenses for income taxes and income tax payments. With other non-cash items decreasing to a greater extent than net income increased, net cash provided by operating activities benefited from declines in accounts receivable and increases in accounts payable. In addition, reduced cash outflows for interest payments coupled with higher cash inflows from interest earnings contributed to the increase in net cash provided by operating activities.

**Net Cash Used For Investing Activities.** Cash used for investing activities consists of net changes in temporary cash investments (i.e., securities with a maturity of over three months) and other cash used for investing activities such as capital expenditures, acquisitions and proceeds from sales of assets.

	<u>Year ended December 31,</u>		
	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(millions of euro)		
Net change in short-term investments.....	2,328	(701)	1,729
Other cash used for investing activities .....	<u>(21,012)</u>	<u>(6,810)</u>	<u>(7,133)</u>
<b>Net cash used for investing activities.....</b>	<b><u>(18,684)</u></b>	<b><u>(7,511)</u></b>	<b><u>(5,404)</u></b>

In 1999, a net amount of EUR 2.3 billion of short-term investments was redeemed, resulting in a net cash inflow from short-term investments. In 1998, Deutsche Telekom dedicated a net amount of EUR 0.7 billion of cash to short-term investments.

Other net cash used for investing activities increased by 209 percent from 1998 to 1999. An increase of EUR 13.4 million in investments in subsidiaries, associated companies and related companies, principally due to the acquisition of interests in max.mobil. and One 2 One, together with an increase in capital expenditures from EUR 4.8 billion in 1998 to EUR 6.0 billion in 1999, accounted for a substantial majority of the increase in other net cash used for investing activities in 1999. The increase in capital expenditures resulted primarily from increased expenditures of T-Mobil for mobile network equipment and from the inclusion of capital expenditures of max.mobil. and One 2 One in Deutsche Telekom's consolidated financial statements for the first time in 1999. For further information in this regard, see "—Capital Expenditures and Investments."

Other cash used for investing activities declined from 1997 to 1998, primarily as a result of a decrease in capital expenditures that was due to the completion of the digitization of Deutsche Telekom's network at the end of 1997. In 1997 and 1998, cash was used for investments in noncurrent securities and investments in joint ventures and third party telecommunications companies.

**Net Cash Provided By (Used For) Financing Activities.** Net cash provided by financing activities increased to EUR 8.0 billion in 1999, which represents a cash inflow of EUR 10.6 billion from Deutsche Telekom's 1999 public offering of shares, EUR 1.7 billion used for payment of dividends relating to the 1998 financial year and a net amount of EUR 0.9 billion used for retirement of indebtedness. EUR 0.9 billion of indebtedness was retired prior to maturity in 1999. Although a net cash outflow relating to retirement of indebtedness occurred in 1999, net indebtedness in the balance sheet increased by EUR 2.4 billion during 1999 due to the assumption of indebtedness in connection with acquisitions made in that year, which did not have an impact on cash flows from financing activities.

In 1998, Deutsche Telekom reduced its outstanding debt by EUR 5.0 billion. In addition, Deutsche Telekom paid dividends in an aggregate amount of EUR 1.8 billion in 1998 relating to the 1997 financial year, which for the first time included dividends paid by MATÁV.

As in 1998, the change in net cash provided by (used for) financing activities in 1999 includes the effect of the cash inflow of EUR 1 billion from bonds issued by Deutsche Telekom from a debut benchmark bond issue.

### **Capital Resources**

At December 31, 1999, Deutsche Telekom had committed short-term credit facilities of EUR 8.3 billion. The interest rates for these facilities range from 5.5 percent to 6.0 percent or are set at the daily interbank rate plus 0.25 percent. Deutsche Telekom expects to renew these facilities annually. At December 31, 1999, these credit lines had been drawn upon in the amount of EUR 3.5 billion. At December 31, 1999, medium term notes in the amount of EUR 358 million were outstanding, of which EUR 51 million expire in 2000 and the remaining EUR 307 million have maturities ranging from 2001 to 2009. At December 31, 1999, these medium term notes bore interest at an average effective rate 6.5 percent.

As of December 31, 1999, EUR 31.8 billion of Deutsche Telekom's liabilities were guaranteed by the Federal Republic. Indebtedness incurred by Deutsche Telekom since the beginning 1995 is no longer guaranteed by the Federal Republic, as described above under the heading "Relationship with the Federal Republic—Federal Republic Guarantees".

Deutsche Telekom believes that its bank facilities, together with its liquid assets, are sufficient to meet its present working capital needs. Deutsche Telekom may incur additional indebtedness in connection with the implementation of its internationalization strategy. In addition, Deutsche Telekom may incur new debt to refinance existing debt. Financing and refinancing conditions will depend principally upon future market conditions, Deutsche Telekom's rating as a debtor and its future prospects. See "—Quantitative and Qualitative Disclosures About Market Risk" for a presentation of scheduled maturities of Deutsche Telekom's indebtedness as of December 31, 1999. Debt of EUR 8.9 billion (including liabilities to banks) will reach maturity in 2000. For the longer term, Deutsche Telekom is seeking to establish a capital structure consisting of approximately 40 percent equity, 40 percent debt and 20 percent accruals. Deutsche Telekom may face increased cash requirements, which exceed internal cash flow, to support its growth in the global markets and its evolution toward being a telematics services provider, and may consider capital-raising measures in this regard.

### **Capital Expenditures and Investments**

The following table provides information concerning capital expenditures and investments in subsidiaries, associated companies and related companies as well as proceeds from sale of non-current assets:

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	<u>(millions of euro)</u>			<u>(% change)</u>	
Capital expenditures .....	5,974	4,791	6,791	24.7	(29.4)
Investments .....	16,113	2,733	801	489.6	241.1
Proceeds from sale of non-current assets .....	(1,073)	(715)	(329)	50.1	117.3
Other .....	<u>(2)</u>	<u>1</u>	<u>(130)</u>	(300.0)	(100.8)
<b>Net cash used for investing activities(1) .....</b>	<b><u>21,012</u></b>	<b><u>6,810</u></b>	<b><u>7,133</u></b>	<b>208.5</b>	<b>(4.5)</b>

(1) Excluding net change in short-term investments.

### **Capital Expenditures**

The following table provides information concerning Deutsche Telekom's capital expenditures and percentage changes in them. Other capital expenditures include intangible assets, other equipment, plant and office equipment as well as advance payments and construction in progress.

	<u>Year ended</u> <u>December 31,</u>			<u>Year ended</u> <u>December 31,</u>	
	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1999/1998</u>	<u>1998/1997</u>
	(millions of euro)			(% change)	
Fixed networks.....	2,576	2,348	4,268	9.7	(45.0)
Mobile networks .....	547	289	203	88.9	42.4
Buildings.....	364	223	313	63.2	(28.8)
Other capital expenditures .....	<u>2,487</u>	<u>1,931</u>	<u>2,007</u>	28.8	(3.8)
<b>Total capital expenditures .....</b>	<b><u>5,974</u></b>	<b><u>4,791</u></b>	<b><u>6,791</u></b>	<b>24.7</b>	<b>(29.5)</b>

In 1999, the increase in capital expenditures for fixed networks was due to intensified capital expenditures on switching and transmission equipment. Capital expenditures on mobile networks reflect the increased number of subscribers of T-Mobil, resulting in additions to transmission equipment. The newly acquired companies 2 One 2 One and max.mobil. contributed significantly to capital expenditures on mobile networks. Other capital expenditures increased primarily due to the fee that the Regulatory Authority required Deutsche Telekom to pay in October 1999 for telephone number blocks allocated to Deutsche Telekom prior to January 1, 1998.

In 1998, the decrease in capital expenditures reflects the completion of the digitization of switching and transmission equipment. Capital expenditures on technical assets and equipment for the fixed and mobile networks accounted for approximately 55 percent of total capital expenditures in 1998, with investments in telephone network and switching equipment both accounting for approximately 12 percent. Investments in assets other than technical assets and equipment accounted for the remaining 45 percent. These included capital expenditures for intangible assets of EUR 0.5 billion, which related primarily to software.

In 2000, Deutsche Telekom plans to dedicate EUR 1.5 billion to its fixed telephone network. Within this amount, capital expenditures of EUR 400 million relate to the expansion of the number of ISDN channels in the national network, EUR 500 million is to be devoted to improvements of the international and national network and EUR 500 million is planned for the expansion of its Internet platform. Additionally, Deutsche Telekom plans to dedicate capital expenditures of approximately EUR 800 million to the expansion of the capacity of its mobile network. In the event that Deutsche Telekom is successful in bidding for UMTS licenses, significant further investments will be necessary over the next years.

### ***Investments***

Investments in subsidiaries, associated companies and related companies made in 1999 totaled EUR 16.1 billion. Deutsche Telekom's investments in fully consolidated companies (principally One 2 One, max.mobil. and SIRIS) account for EUR 12.6 billion of this total. A further EUR 1.2 billion relate to equity investments in HT – Hrvatske telekomunikacije d.d., Croatia, which accounted for EUR 0.8 billion, and in Sprint and Atlas/Global One, each of which accounted for EUR 0.2 billion. A loan of EUR 0.2 billion was granted to DETECON, an associated company. Deutsche Telekom invested a further EUR 1.3 billion in other investment securities, of which EUR 1.0 billion was invested in fixed-income securities issues and EUR 0.3 billion in specialized security funds (mainly fixed funds).

Investments in subsidiaries, associated companies and related companies made in 1998 totaled EUR 2.7 billion. Deutsche Telekom AG invested an additional EUR 0.6 billion in fixed-income securities (annuity funds), mixed funds and equity investment funds, with the object of enhancing income from medium- and long-term reserves. A total of EUR 1.9 billion was invested in associated and related companies. Among the equity investments made was the purchase of a 2 percent interest in France Telecom for EUR 1.2 billion. Other companies in which Deutsche Telekom made equity investments were Atlas/Global One with EUR 240 million, the joint venture Wind S.p.A, Italy, with EUR 77 million, the Israeli company VocalTec Communications Ltd. with EUR 46 million, the satellite company SES Société Européenne des Satellites S.A. with EUR 174 million and Sprint with EUR 38 million. Deutsche Telekom also granted a loan of EUR 111 million to DETECON, an associated company.

Expenditures for further selective expansion into international markets are expected to constitute a greater share of total investment activity over the next few years. In line with its strategy for growth, Deutsche Telekom

continuously evaluates potential acquisitions and business opportunities and will make investments on a selective basis where they match Deutsche Telekom's strategic plans. Going forward, Deutsche Telekom intends to emphasize acquisitions which allow it to exercise a degree of control over the companies in which it invests, and which are within its four strategic growth areas: mobile telecommunications, data communications, consumer Internet and network access.

### **Preparation for the euro and the Year 2000**

#### ***Euro***

The euro was introduced in the Federal Republic on January 1, 1999. To meet customer expectations and comply with legal requirements, Deutsche Telekom in 1997 initiated a project aimed at making its processes, support systems and applications compatible with the euro on a timely and efficient basis. The euro project group coordinates and controls the transition process for the Deutsche Telekom group. It supports the different departments in identifying the processes and systems to be modified and in planning appropriate measures. The euro project group also sets the framework within which Deutsche Telekom's subsidiaries proceed with their transition to the euro.

Deutsche Telekom plans to use the euro as its general billing currency and to modify its general terms and conditions for doing business accordingly starting in January 2002. Until then, Deutsche Telekom will issue its invoices denominated in DM or euro with convenience translations into the other currency, depending on the preference of the customer. The implementation of the euro for all of Deutsche Telekom's internal and external accounting systems is scheduled to be completed by 2001.

Deutsche Telekom estimates total expenditures of EUR 140 million for its euro compliance program. Modification costs for system adjustments will be expensed as incurred. In 1999, Deutsche Telekom spent approximately EUR 35 million on its euro compliance activities. For 2000, Deutsche Telekom expects further costs of approximately EUR 40 million.

#### ***Preparing for the Year 2000***

Deutsche Telekom successfully completed its Year 2000 readiness work and passed through the January 1, 2000 and leap year rollover event while encountering no material outages or business interruptions that affected customers. From the inception of Deutsche Telekom's Year 2000 readiness program in 1997 through December 31, 1999, Deutsche Telekom incurred costs of approximately EUR 134 million of costs associated with the program. Deutsche Telekom expects to spend a further EUR 5 million for completion of the project.

### **German GAAP Compared to U.S. GAAP**

Under U.S. GAAP, Deutsche Telekom's net income was EUR 1.5 billion in 1999, EUR 2.2 billion in 1998 and EUR 1.3 billion in 1997, compared to EUR 1.3 billion in 1999, EUR 2.2 billion in 1998, and EUR 1.7 billion in 1997 under German GAAP. Under U.S. GAAP, shareholders' equity was EUR 37.6 billion at December 31, 1999 and EUR 26.9 billion at December 31, 1998, compared to EUR 35.7 billion at December 31, 1999 and EUR 25.1 billion at December 31, 1998 under German GAAP. Differences result primarily from the different treatment of VAT, capitalization of software costs, the employee share purchase plan, personnel restructuring and other accruals, termination of interest rate swaps and financial instruments, income taxes and share offering costs. See note 36 to the consolidated financial statements. In addition, shareholders' equity also reflects differences in market value adjustments.

### **New Accounting Pronouncements**

Various new accounting standards affecting Deutsche Telekom's financial statements under U.S. GAAP have been adopted, as described in note 40 to the consolidated financial statements.



## ITEM 9A—QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### **Disclosures about Market Risk**

Deutsche Telekom is exposed to interest rate, foreign exchange rate and equity price risk associated with underlying assets, liabilities and anticipated transactions. Following the evaluation of these positions, Deutsche Telekom selectively enters into derivative financial instruments to manage the related risk exposures. These contracts are entered into with major financial institutions, thereby minimizing the risk of credit loss. The activities of the Deutsche Telekom central treasury are subject to policies approved by senior management. These policies address the use of derivative financial instruments, including the approval of counterparties, setting of limits and investment of excess liquidity. Deutsche Telekom's policy is to hold or issue derivative financial instruments for purposes other than trading.

Deutsche Telekom regards effective market risk systems as an important element of its treasury function and is currently enhancing its systems. The risk analysis, which is based on the market middle price, follows the recommendations of the Basel committee bank supervisory boards. The central treasury function, operating as a service center, also supplies financial services to Group companies appropriate to their requirements and local circumstances.

The following discussion and tables, which constitute forward-looking statements that involve risk and uncertainties, summarize Deutsche Telekom's market-sensitive financial instruments including fair value, maturity and contract terms. These tables address market risk only and do not present other risks which Deutsche Telekom faces in the normal course of business, including country risk, credit risk and legal risk.

### ***Interest Rate Risk***

Deutsche Telekom's major market risk exposure arises from changing interest rates, primarily in the European Union. An increase in interest rates reduces the fair value of Deutsche Telekom's debt portfolio, which is primarily of a fixed interest nature. Deutsche Telekom uses interest rate swaps, forward rate agreements, swaptions and futures contracts to diversify funding, reduce interest rate volatility on certain debt issues and investments, and manage its interest expense by achieving a balanced mixture of floating and fixed rate debt. Under interest rate swaps, Deutsche Telekom agrees with other parties to exchange, at specified intervals, the difference between fixed-rate and floating-rate amounts calculated by reference to an agreed notional principal amount. Swaptions entitle the purchaser to require the counterparty to enter an interest rate swap at specified terms. Deutsche Telekom restrictively sells swaptions to improve interest income. Interest rate caps require Deutsche Telekom to pay, or entitle Deutsche Telekom to receive, the excess of an agreed upon rate over a reference interest rate. Futures contracts require Deutsche Telekom to pay or to receive losses or gains arising on movements in the quoted contract price during the period before delivery.

The following tables summarize the nominal and fair values, maturity and contract terms of the interest rate sensitive financial instruments that were held by Deutsche Telekom at December 31, 1999.

**December 31, 1999**  
**Assets and related derivative instruments subject to interest rate risk**

	<u>Maturities</u>						<u>TOTAL</u>	<u>FAIR</u> <u>VALUE</u>
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Thereafter</u>		
	(in millions of euro)							
<b>ASSETS</b>								
Other long-term loans								
Fixed rate .....	102	102	102	133	2	6	447	447
Average interest rate (%) .....	6.95	6.95	6.95	6.95	6.95	6.95	6.95	
Variable rate .....	-	180	-	-	-	-	180	180
Average interest rate (%) (1) .....								
Other investments in non-current securities								
Interest instrument investment portfolio .....	1,358 Note (5)	274 5.35	291 5.03	104 4.50	-	-	2,027	2,294
Other investments in marketable securities								
Fixed rate .....	72	266	257	113	401	616	1,725	1,725
Average interest rate (%) (2) .....	9.82	6.75	6.53	8.59	5.55	4.15		
Liquid assets								
Fixed rate DM, EUR, EMS .....	317	-	-	-	-	-	317	317
Average interest rate (%) (2) .....	3.17	-	-	-	-	-	3.17	
Fixed rate US\$ .....	109	-	-	-	-	-	109	109
Average interest rate (%) (2) .....	5.47	-	-	-	-	-	5.47	
Fixed rate GBP .....	296	-	-	-	-	-	296	296
Average interest rate (%) (2) .....	5.30	-	-	-	-	-	5.30	
Variable rate DM, EUR, EMS .....	3	-	-	-	-	-	3	3
Average interest rate (%) .....	2.76	-	-	-	-	-	2.76	
Variable rate US\$ .....	179	-	-	-	-	-	179	179
Average interest rate (%) .....	3.74	-	-	-	-	-	3.74	
Variable rate GBP .....	3	-	-	-	-	-	3	3
Average interest rate (%) .....	4.15	-	-	-	-	-	4.15	
EUR interest rate swaps								
Receive fixed, pay variable (4) .....	-	-	500	-	-	-	500	(10)
Average receive rate (%) (3) .....	-	-	3.79	-	-	-	3.79	
EUR FRAs sold								
Contract amount .....	1,000	-	-	-	-	-	1,000	(4)
Average rate (%) .....	3.21	-	-	-	-	-	3.21	
Interest rate futures bought								
505 contracts with EUR 100,000 nominal value .....	51	-	-	-	-	-	51	0
Future price DM .....	104.15	-	-	-	-	-	104.15	

(1) The interest rate terms for 6 months LIBOR plus 0,5.

(2) Weighted average rates of the portfolio at the period end.

(3) Weighted average settlement rates applicable to the current settlement period.

(4) Represents notional amounts.

(5) The interest rate terms for these investments (mainly investment funds and mixed funds) are not available.

**December 31, 1999**  
**Liabilities and related derivative instruments subject to interest rate risk**

	<u>Maturities</u>						<u>TOTAL</u>	<u>FAIR</u> <u>VALUE</u>	
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Thereafter</u>			
	(in millions of euro)								
<b>LIABILITIES</b>									
<b>Bonds and debentures</b>									
Fixed rate .....	3,984	5,326	7,874	2,557	9,280	2,726	31,747	33,674	
Average interest rate (%) <sup>(1)</sup> .....	8.87	7.97	7.92	6.25	7.35	5.57	7.54		
Variable rate .....	950	-	-	39	-	51	1,040	1,038	
Average interest rate (%) <sup>(1)</sup> .....	5.25	-	-	14.62	-	5.00	5.59		
<b>Liabilities to banks</b>									
Fixed rate .....	3,559	257	329	475	325	784	5,729	5,729	
Average interest rate (%) <sup>(1)</sup> .....	3.74	7.98	7.20	6.82	7.53	4.69	4.73		
Variable rate <sup>(4)</sup> .....	430	1,602	74	48	20	1,647	3,821	3,821	
Average interest rate (%) <sup>(1)</sup> .....	4.39	6.50	14.84	14.62	14.71	5.84	6.29		
<b>EUR Forward forward deposit</b>									
Contract amount .....	600	-	-	-	-	-	600	(1)	
Average rate (%) .....	3.88	-	-	-	-	-	3.88		
<b>EUR interest rate swaps</b>									
Receive variable, pay fixed .....	-	-	153	153	52	1,534	1,892	(42)	
Average pay rate (%) <sup>(2)</sup> .....	-	-	5.20	4.82	5.45	5.63	5.52		
Average receive rate (%) <sup>(2)</sup> .....	-	-	3.49	2.93	3.11	3.40	3.36		
<b>EUR interest rate swaps</b>									
Receive fixed, pay variable <sup>(3)</sup> .....	13	1,227	716	-	-	562	2,518	30	
Average pay rate (%) <sup>(2)</sup> .....	2.9	3.3	3.07	-	-	3.43	3.26		
Average receive rate (%) <sup>(2)</sup> .....	6.3	4.5	4.71	-	-	5.00	4.68		
<b>GBP interest rate swap</b>									
Receive variable, pay fixed .....	-	-	121	1,008	88	-	1,217	20	
Average pay rate (%) <sup>(2)</sup> .....	-	-	6.92	6.57	5.18	-	6.53		
Average receive rate (%) <sup>(2)</sup> .....	-	-	7.04	7.04	7.04	-	-		
<b>EUR interest rate caps purchased</b>									
Contract amount .....	-	-	153	-	-	-	153	4	
Average strike rate (%) .....	-	-	3.83	-	-	-	3.83		
<b>GBP interest rate caps (collars) purchased</b>									
Contract amount .....	-	-	202	80	-	-	282	0	
Average cap strike rate (%) .....	-	-	8.5	7.5	-	-	8.2		
<b>US\$ interest rate swaps</b>									
Receive variable, pay fixed <sup>(3)</sup> .....	-	-	50	50	-	324	424	17	
Average pay rate (%) <sup>(2)</sup> .....	-	-	6.13	5.83	-	6.15	6.11		
Average receive rate (%) <sup>(2)</sup> .....	-	-	6.14	5.58	-	6.05	6.01		
<b>US\$ interest rate swaps</b>									
Receive fixed, pay variable <sup>(3)</sup> .....	-	-	50	50	-	325	425	(22)	
Average pay rate (%) <sup>(2)</sup> .....	-	-	6.14	5.58	-	6.05	6.01		
Average receive rate (%) <sup>(2)</sup> .....	-	-	5.9	5.8	-	5.92	5.90		
<b>Cross currency interest rate swaps</b>									
Receive fixed GRD, pay variable DM .....	-	30	18	28	-	-	76	11	
Average pay rate (%) <sup>(2)</sup> .....	-	3.12	3.12	3.11	-	-	3.12		
Average receive rate (%) <sup>(2)</sup> .....	-	9.70	9.03	8.11	-	-	8.96		
<b>Receive fixed USD, pay variable EUR</b>									
Average pay rate (%) <sup>(2)</sup> .....	-	-	-	-	-	49	49	2	
Average receive rate (%) <sup>(2)</sup> .....	-	-	-	-	-	6.81	6.81		
						4.65	4.65		

(1) Weighted average rates of the portfolio at the period end.

(2) Weighted average settlement rates applicable to the current settlement period.

- (3) Represents notional amounts.  
(4) Consists mainly of debt denominated in GBP.

### **Foreign Exchange Rate Risk**

Deutsche Telekom conducts its business primarily in Germany and, therefore, its cash flows have been primarily denominated in euros. Deutsche Telekom is exposed to foreign exchange risk related to foreign currency denominated liabilities, international participations and anticipated foreign exchange payments. These liabilities relate primarily to foreign currency denominated debt of group companies. Anticipated foreign exchange payments, representing a substantial sum, relate primarily to expense payments, principally to international third party telecommunications carriers, and capital expenditures. Based on Deutsche Telekom's estimate of future foreign exchange rates, it enters into foreign currency forward exchange contracts to reduce fluctuations in foreign currency cash flows related to these anticipated payments. There can be no assurance that actual payments will conform to Deutsche Telekom's expectations or to historical payment patterns.

The table below provides information about foreign currency derivative instruments. The on balance sheet foreign currency positions are indicated in the interest rate tables. Deutsche Telekom has entered into derivative instruments in connection with anticipated settlement payments to international third party carriers. In addition, in connection with the purchase and financing of One 2 One, Deutsche Telekom has entered into forward sales of GBP (see below) in order to hedge in part the foreign exchange risk.

#### **December 31, 1999** **Derivative instruments subject to foreign exchange risk**

	<u>Maturities</u>						<u>TOTAL</u>	<u>FAIR</u> <u>VALUE</u>
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Thereafter</u>		
	(in millions of euro)							
Foreign currency forward exchange contracts								
Buy US\$/ sell EUR.....	5	-	-	-	-	-	5	1
Average contractual exchange rate (EUR/US\$).....	1.09	-	-	-	-	-	1.09	
Sell US\$/ buy EUR.....	1,039	-	-	-	-	-	1,039	(105)
Average contractual exchange rate (EUR/US\$).....	1.11	-	-	-	-	-	1.11	
Sell GBP/ buy EUR.....	7,066	-	-	-	-	-	7,066	(152)
Average contractual exchange rate (EUR/GBP).....	0.64	-	-	-	-	-	0.64	
Sell HUF/ buy US\$.....	145	-	-	-	-	-	145	(2)
Average contractual exchange rate (HUF/US\$).....	1.57	-	-	-	-	-	1.57	
Cross currency interest rate swaps								
Receive fixed GRD, pay variable DM.....	-	30	18	28	-	-	76	11
Average pay rate (%) <sup>(1)</sup> .....	-	3.12	3.12	3.11	-	-	3.12	
Average receive rate (%) <sup>(1)</sup> .....	-	9.7	9.03	8.11	-	-	8.96	
Receive fixed USD, pay variable EUR.....	-	-	-	-	-	49	49	2
Average pay rate (%) <sup>(1)</sup> .....	-	-	-	-	-	6.81	6.81	
Average receive rate (%) <sup>(1)</sup> .....	-	-	-	-	-	4.65	4.65	

(1) Weighted average settlement rates applicable to the current settlement period.

### **Equity Price Risk**

Deutsche Telekom continuously evaluates investment opportunities with a view to enhancing its return on excess liquidity, while maintaining a diversified portfolio. The table below presents the cost and fair value of those marketable equity securities comprising mixed and equity funds held by Deutsche Telekom at December 31, 1999 which are sensitive to changes in equity prices. The securities are carried at cost.

	<u>December 31, 1999</u>	
	<u>Assets subject to equity</u>	
	<u>price risk</u>	
	<u>Cost</u>	<u>Fair Value</u>
	<u>(in millions of euro)</u>	
Other investments in non-current securities		
Equity investment portfolio .....	685	888

The fair value of debt and investments which are publicly traded, primarily bonds and debentures, is estimated based on quoted market prices at year end. The book values of commercial paper, liabilities to banks and other liabilities approximate their fair values. The net carrying amounts of liquid assets reflect reasonable estimates of fair value due to the relatively short period to maturity of the instruments. The fair value of off-balance sheet financial instruments generally reflects the estimated amount Deutsche Telekom would receive or pay to terminate the contracts at the reporting date, thereby taking into account the current unrealized gains and losses of open contracts. The estimated fair values of derivatives used to hedge or modify Deutsche Telekom's risk will vary substantially with future changes in interest rates or with fluctuations in foreign exchange rates. These fair values should not be viewed in isolation, but rather in relation to the fair values of the underlying hedged transactions and the overall reduction in Deutsche Telekom's exposure to adverse fluctuations in interest and foreign exchange rates.

### **Changes in market risk exposure compared to 1998**

The reduction of the fixed rate bonds by approximately 12 percent to EUR 31.7 billion accordingly reduces the fair value risk resulting from potential changes in interest rates. Deutsche Telekom's foreign exchange exposure did not materially change compared to 1998. Deutsche Telekom faces an increased equity price risk related to its investment in mixed and equity funds which increased by EUR 147 million in 1999 to EUR 685 million. For a summarized comparison of the nominal amounts, book values and market values of financial instruments and other information relating to those instruments, see note 33 to the consolidated financial statements.

## **ITEM 10—DIRECTORS AND OFFICERS OF REGISTRANT**

### **General**

As required by the German Stock Corporation Act, Deutsche Telekom has a two-tier board system consisting of a Board of Management and a Supervisory Board. The Board of Management is responsible for managing Deutsche Telekom and representing Deutsche Telekom in its dealings with third parties, while the Supervisory Board appoints and removes the members of the Board of Management and oversees the management of Deutsche Telekom. Since 1998, the Supervisory Board is required to review not only the annual financial statements of Deutsche Telekom AG but also the consolidated financial statements. The official auditor is engaged by the Supervisory Board.

Under the German Stock Corporation Act, the Supervisory Board is not permitted to make management decisions. Pursuant to the Articles of Association of Deutsche Telekom and the By-laws (*Geschäftsordnung*) of the Board of Management, the Board of Management must obtain the consent of the Supervisory Board for certain actions, including acquisitions or dispositions of real property having a value of more than EUR 25 million, acquisitions or dispositions of equity investments, the appointment of members of the Supervisory Board or other bodies having supervisory functions of direct or indirect subsidiaries with a share capital of more than EUR 2.5 million or an annual turnover of more than EUR 25 million, and actions concerning the corporate

structure or the strategy of Deutsche Telekom. In addition, under the German Stock Corporation Act, the Supervisory Board is authorized to subject other actions of the Board of Management to its consent.

The Board of Management is required to ensure that adequate risk management and internal monitoring systems exist in the company. The Board of Management has to submit regular reports on the operations and fundamental planning of Deutsche Telekom to the Supervisory Board. The Supervisory Board is also entitled to request special reports at any time. The German Stock Corporation Act prohibits simultaneous membership on the board of management and the supervisory board of a company.

Both the members of the Board of Management and the members of the Supervisory Board owe a duty of loyalty and care to Deutsche Telekom. In carrying out their duties, members of both the Board of Management and the Supervisory Board must exercise the standard of care of a prudent and diligent businessman. The interests of Deutsche Telekom are deemed to include the interests of the shareholders, the interests of the work force and, to some extent, the common interest, and both the Board of Management and the Supervisory Board must take all these interests into account when taking actions or decisions. Although there is no explicit obligation to act solely in the interests of shareholders, the Board of Management is required to respect their rights to equal treatment and equal information.

Under German law, shareholders, like other persons, are prohibited from using their influence on Deutsche Telekom to cause a member of the Board of Management or the Supervisory Board to act in a way that is harmful to Deutsche Telekom. A controlling enterprise may not cause Deutsche Telekom to take measures that are unfavorable to Deutsche Telekom unless any resulting disadvantage is compensated. An individual shareholder or any other person exerting influence on Deutsche Telekom to cause a member of the Board of Management or of the Supervisory Board or holders of special proxies (*Prokuristen or Handlungsbevollmächtigte*) to act in a way that is unfavorable to Deutsche Telekom or its shareholders is liable for damages to Deutsche Telekom and its shareholders. Board members who have neglected their duties in taking the actions are likewise jointly and severally liable for damages.

As a general rule under German law, a shareholder has no direct recourse against the members of the Board of Management or the Supervisory Board in the event that they are believed to have breached a duty to Deutsche Telekom. Only Deutsche Telekom has the right to claim damages from the members of the two Boards. Deutsche Telekom may only waive such damages or settle such claims if at least three years have passed and if the shareholders so approve at a shareholders' meeting with a simple majority of the votes, provided that the opposing shareholders do not hold, in the aggregate, one tenth or more of the nominal share capital of Deutsche Telekom and do not formally express their opposition at the shareholders' meeting by having their opposition noted in the minutes of the meeting maintained by a German notary (*Notar*).

### ***Board of Management***

Pursuant to Deutsche Telekom's Articles of Incorporation, the Supervisory Board determines the size of the Board of Management, subject to the requirement that the Board of Management must have at least two members. The Supervisory Board may appoint a Chairman of the Board of Management as well as a Deputy Chairman.

The members of the Board of Management are appointed by the Supervisory Board for a term of up to five years. They may be re-appointed or have their term extended for one or more terms of up to five years. Under certain circumstances, such as a material breach of duty or a bona fide vote of no confidence by the shareholders, a member of the Board of Management may be removed by the Supervisory Board prior to the expiration of such term. A member of the Board of Management may not deal with, or vote on, matters relating to proposals, arrangements or contracts between himself and Deutsche Telekom.

The Board of Management takes action by simple majority unless otherwise provided by law. In the event of a deadlock, the Board of Management member in whose area of responsibility the resolution falls has a deciding vote.

For a list of the members of the Board of Management, their ages and their responsibilities, the dates of their appointment and brief biographical information, see the information set forth under the heading "The Board of Management of Deutsche Telekom AG in 1999/2000" on pages 6 and 7 of the 1999 Annual Report, which information is incorporated herein by reference. The members of the Board of Management may be reached at Deutsche Telekom's registered address.

Dr. Joachim Kröske, Chief Financial Officer and Chief Accounting Officer, resigned from the Board of Management of Deutsche Telekom AG. His position was filled by Dr. Karl-Gerhard Eick with effect from January 1, 2000.

The members of Deutsche Telekom's Board of Management owned a total of approximately 4,200 Deutsche Telekom shares as of March 31, 2000.

### ***Supervisory Board***

In accordance with the German Stock Corporation Act, the Supervisory Board of Deutsche Telekom consists of twenty members, ten of whom represent the shareholders and ten of whom represent the employees. Members of the Supervisory Board may be elected for a term of up to five years. The Supervisory Board members representing the shareholders are elected at the annual shareholders' meeting. Most of the current Supervisory Board members representing employees were elected on October 2, 1997 by the employees in accordance with the provisions of the Co-Determination Act of 1976 (*Mitbestimmungsgesetz*). In this election procedure, employees elect ten representatives made up of workers, regular employees, senior management employees and three union representatives. Under Postreform II, civil servants, who are not covered by the Co-Determination Act, are included in these groups according to their occupations for purposes of these elections.

A member of the Supervisory Board elected by the shareholders may be removed by the shareholders by a majority of the votes cast at the annual shareholders meeting. A member of the Supervisory Board elected by the employees may be removed by a majority of at least three quarters of the votes cast by the relevant class of employees.

If a member of the Supervisory Board resigns ahead of time, it is possible under the Act for a new member to be appointed, in urgent cases, by court.

The Supervisory Board elects a Chairman and a Deputy Chairman from among its members; in the event that a majority of two thirds of the members of the Supervisory Board is not achieved, the shareholder representatives elect the Chairman and the employee representatives elect the Deputy Chairman.

The Supervisory Board must meet at least four times per calendar year. To achieve a quorum, at least ten of the members of the Supervisory Board must be present or cast their votes in writing. Except in situations in which a different majority is required by law, the Supervisory Board takes decisions by simple majority of the votes cast. If, in the event of a deadlock, a second vote again results in a tie, the Chairman of the Supervisory Board can cast a deciding vote.

The Supervisory Board has formed several committees including a mediation committee, a personnel committee, a committee for extraordinary matters and a presiding committee. All committees have an equal number of shareholder representatives and employee representatives. The Chairman of the Supervisory Board is the chairman of the mediation committee and the presiding committee where he has the deciding vote in case of a tie. In the other committees, the chairman does not have the deciding vote in case of a tie. The chairman of the personnel committee is a representative of the employees.

The first election of shareholder representatives to the Supervisory Board took place at the shareholders' meeting in July 1996. Since then, further elections have taken place to fill vacancies of the Supervisory Board. The terms of office of the shareholder representatives will expire at the end of the shareholders' meeting at which the shareholders discharge the Supervisory Board members in respect of the financial year 2000, which is

expected to occur in 2001. The terms of office of the employee representatives on the Supervisory Board expire in 2002 upon the election of new employee representatives in accordance with the Co-Determination Act.

For a list of the members of the Supervisory Board, the years of their appointment and their principal occupations, see the information set forth under the heading "The Supervisory Board of Deutsche Telekom AG in 1999" on page 10 of the 1999 Annual Report, which information is incorporated herein by reference.

Veronika Altmeyer resigned from the Supervisory Board as of March 28, 1999. Her position was filled by Rüdiger Schulze on the basis of a court order with effect as of March 29, 1999. He was elected as Vice Chairman of the Supervisory Board with effect from April 13, 1999.

At the annual shareholders' meeting of Deutsche Telekom held on May 27, 1999, Rainer Funke, Prof. Dr. Peter Glotz, Dr.-Ing. Paul Krüger and Dr. Claus Noé resigned from their Supervisory Board positions and were replaced by Hans W. Reich, Bernhard Walter, Dr. Hans-Dietrich Winkhaus and Prof. Dr. Heribert Zitzelsberger.

Maud Pagel resigned from the Supervisory Board as of May 31, 1999. Her position was filled by Waltraud Litzenberger with effect from June 1, 1999.

Reinhard Ahrensmeier resigned from the Supervisory Board as of February 29, 2000. His position will be filled by Rainer Koch in April, 2000 on the basis of a court order.

Michael Bon resigned from the Supervisory Board as of March 31, 2000. The annual shareholder's meeting held on May 25, 2000 will elect a successor.

Franz-Josef Klare resigned from the Supervisory Board as of April 15, 2000. His position will be filled by Michael Sommer.

Prof. Dr. Herbert Sihler declared that he will leave his position as Chairman of the Supervisory Board with effect of the end of the annual shareholders' meeting held on May 25, 2000. The Supervisory Board will elect a new Chairman of the Supervisory Board in a meeting in May, 2000.

The members of the Supervisory Board owned a total of approximately 2,700 Deutsche Telekom shares as of March 31, 2000.

#### **ITEM 11—COMPENSATION OF DIRECTORS AND OFFICERS**

In addition to reimbursement of actual out-of-pocket expenses, members of the Supervisory Board receive a fee of EUR 200 per meeting in respect of imputed out-of-pocket expenses and an annual payment. The annual compensation for 1999 will be determined by the shareholders' meeting on May 25, 2000. The proposed amount is EUR 50,000 for the Chairman, EUR 37,500 for the Deputy Chairman and EUR 25,000 for each remaining member of the Supervisory Board. In 1999, remuneration was paid to members of the Supervisory Board of Deutsche Telekom AG for 1998 in the amount of EUR 246,442.68 inclusive of meeting expenses of EUR 18,406.51.

Provided the 1999 financial statements of Deutsche Telekom AG are approved in their current form, the remuneration of the Board of Management of Deutsche Telekom, in respect of financial year 1999, will amount to EUR 7,557,167.33. A portion of the total compensation of the Board of Management is paid pursuant to a bonus arrangement consisting of a guaranteed portion and a variable portion. The variable portion is dependent upon a number of criteria, including the attainment of certain financial performance objectives and the achievement of certain individual performance objectives. For the year ended December 31, 1999, 39.2 percent of the total remuneration was paid pursuant to such bonus arrangement. Subject to the approval of the Supervisory Board and the shareholders' meeting, a stock option program for the members of the Board of Management and key employees will be introduced in the year 2000.



Pension accruals totaling EUR 10,967,012 have been established in the books of Deutsche Telekom AG for the members of the Board of Management as of December 31, 1999.

#### **ITEM 12—OPTIONS TO PURCHASE SECURITIES FROM REGISTRANT OR SUBSIDIARIES**

Not applicable. Deutsche Telekom may, however, introduce a stock option program for members of the management board and key employees in the year 2000. See "Compensation of Directors and Officers".

#### **ITEM 13—INTEREST OF MANAGEMENT IN CERTAIN TRANSACTIONS**

To the extent disclosed to shareholders or otherwise made public, see "Control of Registrant" for information concerning material transactions with the Federal Republic, which as at December 31, 1999, held an approximate 43percent direct stake in Deutsche Telekom and an additional indirect stake as a result of the interest held by KfW of approximately 22 percent.

### **PART II**

#### **ITEM 14—DESCRIPTION OF SECURITIES TO BE REGISTERED**

Not applicable.

### **PART III**

#### **ITEM 15—DEFAULTS UPON SENIOR SECURITIES**

Not applicable.

#### **ITEM 16—CHANGES IN SECURITIES, CHANGES IN SECURITY FOR REGISTERED SECURITIES AND USE OF PROCEEDS**

Deutsche Telekom determined during 1999 that, with effect as of January 24, 2000, the ordinary shares of Deutsche Telekom would be converted from bearer form to registered form. This conversion has no substantive impact on the American Depositary Shares, each representing one Share. Although the conversion affects the manner in which shareholders exercise rights attached to the ordinary shares, including voting rights and rights to receive dividends, the conversion does not materially change shareholders' substantive rights.

### **PART IV**

#### **ITEM 17—FINANCIAL STATEMENTS**

Not applicable.

#### **ITEM 18—FINANCIAL STATEMENTS**

See "Financial Statements and Exhibits Deutsche Telekom" for a list of financial statements filed under Item 18.

## ITEM 19—FINANCIAL STATEMENTS AND EXHIBITS DEUTSCHE TELEKOM

With the exception of the pages set forth in the list of consolidated financial statements incorporated by reference herein and the items incorporated by reference elsewhere in this report, the 1999 Annual Report is not to be deemed filed as part of this report.

(a) Financial Statements

(1) Incorporated by reference from the 1999 Annual Report contained in the Company's Report on Form 6-K dated April 19, 2000:

1999 Annual Report Pages

Consolidated Statement of Income for the years ended December 31, 1999, 1998 and 1997 .....	88
Consolidated Balance Sheet at December 31, 1999 and 1998 .....	89
Consolidated Statement of Cash Flows for the years ended December 31, 1999, 1998 and 1997 .....	92
Consolidated Statement of Shareholders' Equity at December 31, 1999 and 1998 .....	93
Notes to Consolidated Financial Statements .....	94

(2) Report of Independent Accountants

The consolidated financial statements listed above which are included in the 1999 Annual Report are incorporated herein by reference.

## **REPORT OF INDEPENDENT ACCOUNTANTS**

### **To the Board of Management and Shareholders of Deutsche Telekom AG**

We have audited the consolidated balance sheets of Deutsche Telekom AG as of December 31, 1998 and 1999 and the related consolidated statements of income, shareholders' equity and cash flows of Deutsche Telekom AG for each of the three years in the period ended December 31, 1999. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards in Germany, which are substantially the same as those followed in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Deutsche Telekom AG as of December 31, 1998 and 1999, and the consolidated results of operations, shareholders' equity and cash flows of Deutsche Telekom AG for each of the three years in the period ended December 31, 1999 in conformity with generally accepted accounting principles in Germany.

Application of accounting principles generally accepted in the United States would have affected shareholders' equity as of December 31, 1998 and 1999 and net income for each of the years in the three year period ended December 31, 1999 to the extent summarized in Note 36 to the consolidated financial statements.

Frankfurt am Main,

March 27, 2000

PwC Deutsche Revision  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

Dickmann  
Wirtschaftsprüfer

Laue  
Wirtschaftsprüfer