Prospectus Supplement to Prospectus dated June 4, 1999.

# **Deutsche Telekom AG**

Deutsche Telekom

# 250,000,000 Ordinary Shares in the form of shares or American Depositary Shares

Through the underwriters, we are offering a total of 250 million shares in the combined offering. In the rights offering, a total of 78,297,132 shares in the form of shares or ADSs are being sold to investors who exercised rights or ADS rights during the subscription period. In the global offering, 171,702,868 shares are being sold in the form of shares or ADSs.

We will receive approximately  $\in$  9,570,255,736 in the combined offering, after deduction of underwriting commissions.

**Rights Offering** 

Offer price per share =  $\in$  37.50 Offer price per ADS = \$39.18

Global Offering

Offer price per share =  $\in$  39.50 Offer price per ADS = \$41.27

Eligible retail investors who placed orders in the pan-European retail offering during the early order period are receiving a discount of €2.00 per share from the global offering price.

The underwriters may, under certain circumstances, purchase up to an additional 29,969,388 shares from us solely to cover over-allotments, if any.

Global Coordinators

Deutsche Bank

Dresdner Kleinwort Benson

Goldman, Sachs & Co.

Prospectus Supplement dated June 26, 1999.

#### PLAN OF DISTRIBUTION

Subject to the terms and conditions set forth in the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares set forth opposite its name below.

	Shares		Shares
Deutsche Bank Aktiengesellschaft	43,772,667	Baden-Württembergische Bank	
Dresdner Bank Aktiengesellschaft	43,772,667	Aktiengesellschaft	1,325,000
Goldman, Sachs & Co. oHG	43,772,666	Bankgesellschaft Berlin Aktiengesellschaft	1,699,000
ABN AMRO Rothschild	8.370.000	Banca Commerciale Italiana S.p.A.	1,969,000
Credit Suisse First Boston (Europe) Limited	2,325,000	UniCredito Italiano S.p.A.	1,969,000
Merrill Lynch International	2,325,000	Banca di Roma S.p.A.	985,000
COMMERZBANK Aktiengesellschaft	9,847,000	CABOTO SIM SPA	985,000
DG BANK Deutsche Genossenschaftsbank		CISF-Banco de Investimento S.A.	675,000
AG	9,847,000	Banque Générale du Luxembourg Société	075 000
Warburg Dillon Read AG	2,000,000		675,000
Banca d'Intermediazione Mobiliare IMI S.p.A	7,878,000	Crédit Agricole Indosuez	675,000
Daiwa Europe Limited	2,954,000	CCF Charterhouse	675,000
Bayerische Landesbank Girozentrale	7,075,000	Sparkassen AG	675,000
Bayerische Hypo- und Vereinsbank AG	6,967,000	Banque Bruxelles Lambert S.A.	675,000
Westdeutsche Landesbank Girozentrale	7,075,000	KBC Bank & Verzekeringen N.V.	675,000
BBV Interactivos, S.A., S.V.B.	4,000,000	Merita Bank Plc	675,000
CA IB Investmentbank Aktiengesellschaft	4,000,000	Raiffeisen Zentralbank Österreich	010,000
Société Générale	4,000,000	Aktiengesellschaft	675,000
Landesbank Baden-Württemberg	3,325,000	Banco Santander de Negocios S.A.	675,000
Norddeutsche Landesbank Girozentrale	3,325,000	Banco de Negocios Argentaria, S.A.	675,000
Trinkaus & Burkhardt KGaA	2,675,000	NCB Stockbrokers Limited	825,000
Banque Nationale de Paris	2,000,000	Morgan Stanley & Co. International	,
BHF-BANK Aktiengesellschaft	2,000,000	Limited	675,000
Sal. Oppenheim jr. & Cie.		J.P. Morgan Securities Ltd.	675,000
Kommanditgesellschaft auf Aktien	2,000,000	Salomon Brothers International Limited	675,000
B. Metzler seel. Sohn & Co.		Paribas	675,000
Kommanditgesellschaft auf Aktien	1,325,000	Nomura International plc	812,000
M.M. Warburg & CO Kommanditgesellschaft		Bear, Stearns International Limited	675,000
auf Aktien	1,325,000	Toronto Dominion Bank	675,000

Deutsche Telekom will pay to the underwriters underwriting discounts and commissions in the aggregate amount of approximately  $\in$ 148,150,000 ( $\in$ 161,024,849 assuming full exercise of the overallotment option) following completion of the combined offering. These amounts and the net proceeds figure on the cover page are calculated assuming all shares and ADSs are sold to institutional investors, in respect of whom the fixed selling concession being paid per share or ADS is higher than in the case of shares sold in the pan-European retail offering. Deutsche Telekom may, however, pay performance-related selling concessions in connection with shares sold in the pan-European retail offering. Deutsche Telekom does not expect that these additional selling concessions will exceed  $\in$ 21 million in the aggregate (assuming that the underwriters do not exercise their over-allotment option). For purposes of this calculation, underwriting discounts from and commissions on the sale of ADSs have been converted into Euro at the rate of  $\in$ 1.00 = \$1.0448.

No discounts or commissions are to be paid to or received by any dealer in connection with the sale of the shares and ADSs. Neither Deutsche Telekom nor the underwriters have bought any shares in stabilization activities during the subscription period in the rights offering. The underwriters in their capacity as such did not subscribe for or sell shares issuable upon the exercise of rights during the subscription period. Certain underwriters acted as subscription agents in the rights offering exercising rights at the request and on behalf of rights holders.

# ERRATA

On page 7 of the prospectus, there are two corrections in the U.S. dollar convenience translations. The figure for "Financial income (expense), net" for the first quarter of 1999 should be "(847)" rather than "1,847," and the figure for "Amounts in accordance with U.S. GAAP—Shareholders' equity" for the full year 1998 should be "29,028" rather than "27,027." The corresponding Euro amounts are correct.

# **Deutsche Telekom AG**

Deutsche Telekom

# up to 250 million Ordinary Shares in the form of shares or American Depositary Shares

Our new shares are being offered in a rights offering to existing holders of our shares and ADSs and in a global offering consisting of a pan-European retail offering in eleven European countries, public offerings in the United States and Japan and private placements around the world. This prospectus relates to the shares and ADSs being offered outside the United States and Japan to institutions in the rights offering and the global offering. We expect that at least 72% of the new shares being offered in the combined offering will be available for sale in the global offering.

The principal market on which the shares are traded is the Frankfurt Stock Exchange, where they trade under the symbol "DTE" (German securities code 555 700). The ADSs are listed on the New York Stock Exchange under the symbol "DT". The rights will be admitted for trading on the Frankfurt Stock Exchange, and the ADS rights in the form of warrants will be admitted for trading on the New York Stock Exchange.

The official subscription price in the rights offering is  $\in$ 45 per share and the U.S. dollar equivalent of  $\in$ 45 per share translated at the noon buying rate on the last day of the bookbuilding period per ADS. Rights holders might, however, ultimately pay less. If the market price of the shares at the close of the last day of the bookbuilding period or the initial price to public for the shares in the global offering is lower than the official subscription price, the price you are required to pay will be reduced to the lower of these prices. The initial price to public in the global offering will be determined through a bookbuilding process.

We are offering a discount to shareholders and ADS holders who exercise their rights and ADS rights in the rights offering and to certain retail investors in Europe.

The actual price to be paid in the rights offering and the initial price to public in the global offering will be available by calling 1-800-697-3837 or logging in to http://www.telekom.de/us-offer from 10:00 a.m. (New York City time) on June 27, 1999. These prices will also be published in The Wall Street Journal on or about June 28, 1999.

You should assume that the combined offering may be terminated at any time, even with respect to subscription rights that have been exercised.

The underwriters may, under certain circumstances, purchase up to approximately 30 million additional shares from Deutsche Telekom at the initial price to public less the selling concession.

The underwriters expect to deliver the shares and ADSs to purchasers on or as soon as practicable after June 30, 1999.

**Global Coordinators** 

Deutsche Bank Aktiengesellschaft Dresdner Bank Aktiengesellschaft Goldman, Sachs & Co.

Prospectus dated June 4, 1999.

Global Coordinators

Deutsche Bank Aktiengesellschaft	Dresdner Bank Aktiengesellschaft	Goldman, Sachs & Co.
Deutsche Bank	Dresdner Kleinwort Benson	Goldman Sachs International
ABN AMRO Rothschild	Credit Suisse First Boston	Merrill Lynch International
•••••	erzbank esellschaft	DG BANK Deutsche Genossenschaftsbank AG
Warburg Dillon Read	Banca d'Intermediazione Mobiliare	IMI Daiwa Europe Limited
Morgan Stanley Dean Witte	r J.P. Morgan Securities Ltd.	Salomon Smith Barney International
Paribas	Société Générale	Banque Nationale de Paris
Bayerische Landesbank	HypoVereinsbank	WestLB Panmure
HSBC Trinka	ıs & Burkhardt	Nomura International
Bear, Stearns Int	ernational Limited	TD Securities
CA IB Investmentbank	Banca Commerciale Italiana UniCredit	to Italiano BBV Interactivos, S.V.B.

Financial Advisor to Deutsche Telekom

ABN AMRO Rothschild

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# **About This Prospectus**

You should rely only on the information provided in this prospectus. We have not authorized anyone to provide you with different information. We are not offering to sell or soliciting offers to buy in places where such offers are not permitted by applicable law. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of this document.

The distribution of this prospectus and the offering and sale of the shares and ADSs in certain jurisdictions may be restricted by law. You must inform yourself about and observe any restrictions that may apply.

This document has not been approved as an investment advertisement pursuant to Section 57 of the Financial Services Act 1986 and may not be issued or passed on in the United Kingdom except to a person who is of a kind described in Article 11(3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996.

### **Forward-Looking Statements**

This prospectus contains forward-looking statements. Statements that are not historical facts, including statements about our beliefs and expectations, are forward-looking statements. These statements are based on current plans, estimates and projections, and therefore you should not place too much reliance on them. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update any of them in light of new information or future events. Forward-looking statements involve inherent risks and uncertainties. We caution you that a number of important factors could cause actual results or outcomes to differ materially from those expressed in any forward-looking statement. These factors include, but are not limited to, the following:

- 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 1999 tariff reduction initiatives, particularly in our core telephony business;
- 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, particularly with regard to regulatory determinations;
- the success of new business, operating and financial initiatives, many of which involve startup costs, and new systems and applications, particularly with regard to our integration of service offerings;
- the success of our domestic and international investments, joint ventures and alliances and the after-effects of our proposed business combination with Telecom Italia;
- 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;
- 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 €17.7 billion as of December 31, 1998;
- the effects of the year 2000 issue on us, our affiliates and our business environment; and
- general economic conditions, government and regulatory policies, and business conditions in the markets we and our affiliates serve.

### **PROSPECTUS SUMMARY**

This summary highlights selected information from this prospectus and may not contain all of the information that is important to you. You should read the entire prospectus carefully.

# **Deutsche Telekom**

Deutsche Telekom is the largest provider of telecommunications services in Germany. We are also Europe's largest, and the world's third largest, telecommunications service provider, measured in terms of consolidated net revenues. Our consolidated net revenues in 1998 totaled  $\in$  35.7 billion.

We are a full-service telecommunications provider. In Germany, we are the largest provider of fixed-line voice telephony services to the public, providing over 46 million access lines to subscribers at March 31, 1999. More than 10 million of these lines were ISDN lines, making us the world's leading ISDN operator. We are Germany's second largest provider of mobile telephone service, with approximately 6.0 million digital mobile telephone subscribers as of March 31, 1999. We are also the leading data communications provider and one of the leading systems solutions providers in Germany. Through our rapidly growing T-Online business, we own Europe's largest Internet online service provider and access gateway, with 3.0 million subscribers at March 31, 1999.

We operate Germany's largest broadband cable network, transmitting television and radio programming, directly or indirectly, to 17.7 million households. We have placed the core of our cable business in a separate subsidiary and are exploring the possibility of selling partial interests in our cable business to third party investors. In addition, we are among the European leaders in radio and television signal broadcasting. We are also Germany's leading provider of interconnection and other carrier services to other telecommunications companies. Moreover, we sell telephone equipment, provide directory assistance and publish telephone directories.

Internationally, we participate in the Global One joint venture with France Télécom and Sprint Corporation ("Sprint") to offer seamless international telecommunications services to international customers and other carriers. We and France Telecom hold 2% cross-shareholdings and have been cooperating in a number of fields. Deutsche Telekom also holds a 10% equity interest in Sprint.

Through a holding company co-owned with a U.S. carrier, we own a controlling interest in Magyar Távközlési Rt. ("MATÁV"), Hungary's largest telecommunications provider. We recently acquired a majority interest in max.mobil., Austria's second largest mobile telecommunications provider. We have made strategic investments in other telecommunications enterprises outside Germany to take advantage of opportunities in foreign markets.

In the fully liberalized German market for telecommunications services, our focus is on providing innovative and high quality telecommunications services, taking advantage of our large and technologically advanced networks. Using our strong position in German fixed-network and mobile telephony, online and data services and other services, and our expertise in information technology, our aim is to offer our customers "telematics" solutions, combining information technology with telecommunications, including voice, data and online services.

# **Recent Developments**

Our goal is to become a truly pan-European full-service telecommunications operator. To pursue our goal, we announced in April 1999 an agreement with Telecom Italia to combine our businesses in a "merger of equals" transaction. Under the terms of this agreement, a newly formed German

company ("Newco") would have made exchange offers to the shareholders of Deutsche Telekom and Telecom Italia. If we assume that all shareholders had accepted, Deutsche Telekom shareholders would have held 56% and Telecom Italia shareholders 44% of Newco. At the time our transaction was announced, Telecom Italia was also the subject of an unsolicited bid by Olivetti. On May 22, 1999, Olivetti announced that it would accept the shares of Telecom Italia, representing approximately 51% of its ordinary shares, tendered to it in response to Olivetti's unsolicited tender offer. While Deutsche Telekom remains convinced of the merits of the business combination, it recognizes that it is unlikely to be consummated in its current form. Our commitment remains to become a pan-European full service telecommunications provider. Following the announcement of the proposed business combination transaction, France Telecom, Enel and WIND separately initiated legal proceedings against Deutsche Telekom in opposition to the proposed transaction. We are unable at this time to determine what effect the results of the Olivetti tender offer will have on these legal proceedings and on our relationships with these parties generally. See "Business—International Investments and Joint Ventures".

# **Ownership by the Federal Republic**

The Federal Republic of Germany directly owned approximately 48.2% of our shares at March 31, 1999. A German government-sponsored development bank called Kreditanstalt für Wiederaufbau ("KfW") owned approximately 23.8% of our shares at that date. Because KfW is 80% owned by the Federal Republic and 20% owned by German state governments, the Federal Republic has the authority to exercise majority shareholder control over us. The Federal Republic and KfW are not selling any of their shares in this offering, and we expect that they will declare that they do not intend to acquire any shares in this offering through the exercise of their subscription rights. As a result, we expect that the combined interest of the Federal Republic and KfW in our shares will decline to 65.9% upon completion of this offering (assuming that the underwriters' over-allotment option is not exercised and that 5,934,646 million shares are sold in a concurrent employee offering).

# **Market Liberalization**

Our most significant service—domestic and international public fixed-line voice telephony—was opened to full competition on January 1, 1998. For the German telecommunications market, this marked the final step in a gradual 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.

Regulatory authorities regard us as having a dominant position in several telecommunications markets. As a result, we are subject to a number of special regulatory restrictions intended to preserve and promote competition.

# The Combined Offering

We are offering up to 250 million newly issued shares in a rights offering to existing holders of our shares or ADSs and in a global offering consisting of a pan-European retail offering in eleven European countries, public offerings in the United States and Japan and private placements with institutional investors around the world. All the shares offered in the rights offering and the global offering will be offered through the underwriters. The combined offering can be terminated under some circumstances, even with respect to rights that have been effectively exercised.

The Rights Offering	If you hold our existing shares, or if you held ADSs representing our existing shares at 5:00 p.m. (New York City time) on June 7, 1999, you will have the right to subscribe for one new share or ADS for each 9.8 shares or ADSs at the official subscription price described on the cover of this prospectus. You might, however, ultimately pay less. If the market price of the shares at the close of the last day of the bookbuilding period, or the initial price to public for the shares in the global offering, is lower than the official subscription price, the price you are required to pay will be reduced to the lower of these prices. You will also receive a discount off the resulting price. The subscription rights expire at 11:59 p.m. (Frankfurt time) on June 23, 1999. The warrants representing the ADS subscription rights expire at 5:00 p.m. (New York City time) on June 22, 1999. If you subscribe for new shares or ADSs, you will receive them as soon as practicable after June 30, 1999. The ADS subscription agent is Citibank, N.A.
	We expect that the Federal Republic and KfW, holders of approximately 72% of Deutsche Telekom's shares, will declare that they will not exercise their subscription rights in respect of the offering. Accordingly, the shares relating to these rights will be available for sale in the global offering.
The Global Offering	The underwriters plan to offer in the global offering shares not taken up in the rights offering. The underwriters plan to offer these shares to retail investors in the eleven countries involved in the pan-European retail offering, to the public in the United States and Japan, and to institutional investors around the world.
Discount	If you exercise rights or warrants, you will be entitled to a discount on the related shares or ADSs. Qualified retail investors holding an account with a bank participating in the pan-European retail offering who subscribe for shares in the pan-European retail offering during the early order period (June 7 to June 15) will generally be entitled to the same discount. The discount will be $\in$ 2.00 per share and the U.S. Dollar equivalent of $\notin$ 2.00 translated at the noon buying rate on the last day of the bookbuilding period per ADS.
Bonus Share Plan	Qualified retail investors holding an account with a bank participating in the pan-European retail offering will be entitled to bonus shares under certain circumstances. The bonus shares will come from the Federal Republic's holdings.

The Employee Offering	Separate from the combined offering, we are offering up to 5,934,646 newly issued shares to our employees and employees of our subsidiaries. We are offering special incentives to our employees in connection with this offering, including a guaranteed allocation of up to 200 shares per employee and a discount of $\in$ 14.56 per share on up to ten shares per employee which is in addition to the discount offered to some individual investors in the pan-European retail offering.
Over-allotment Option	The underwriters have an option to purchase up to 29,969,388 additional shares as part of the global offering.
Shares Outstanding	3,029,604,034 (assuming that all the shares are sold in the combined offering and the employee offering and that the underwriters exercise their over-allotment option in full).
Deutsche Telekom Lock-Up	We will agree with the underwriters, subject to certain exceptions, that before June 2000 we will not, directly or indirectly, dispose or announce the offering of any ordinary shares or preference shares of Deutsche Telekom out of authorized capital <i>(genehmigtes Kapital)</i> or any other securities which are convertible into or exchangeable for ordinary shares or preference shares of Deutsche Telekom, or propose capital increases, except with the prior written consent of the joint global coordinators.
Restrictions on Sales of Shares by the Federal Republic and KfW	The Federal Republic and KfW have agreed with Deutsche Telekom not to sell their Deutsche Telekom shares before June 2000. Deutsche Telekom expects to consider requests from the Federal Republic and KfW for clearance to dispose of Deutsche Telekom shares by means of exchangeable debt offerings after December 31, 1999.
Listing	Our shares are listed on the Frankfurt Stock Exchange and on the other German stock exchanges under the Symbol "DTE" (German securities code 555 700). The ADSs are listed on the New York Stock Exchange under the symbol "DT." The shares are also listed on the Tokyo Stock Exchange, and the shares and ADSs are eligible for quotation and trading through SEAQ International. The rights will be admitted for trading on the Frankfurt Stock Exchange and the warrants will be admitted for trading on the New York Stock Exchange.
Use of Proceeds	We intend to use the net proceeds from this offering primarily for acquisitions of, or investments in, systems solution providers, European and U.S. telecommunications operators, Internet protocol providers, telecommunications networks and related businesses, and to strengthen our capital base, as well as for general corporate purposes.
Our registered address is Friedric	h-Ebert-Allee 140, 53113 Bonn, Germany, our postal address is

Our registered address is Friedrich-Ebert-Allee 140, 53113 Bonn, Germany, our postal address is Postfach 20 00, 53105 Bonn, Germany, and our telephone number is +49-228-181-8896 (Investor Relations).

Summary Con		ed Finar		Statistic	al Info	rmatior	n	
		nded Marc			Year	ended D	ecember 31	,
	1999(1)	1999(4)	1998(2)(3)	1998(1)	1998(2	2)(3)(4)	1997(2)(4)	1996(2)(4)
	\$	€ (unquite	€	\$	*	E	€	€
		(unaudite	a) (in millions (	except pe	r share/A	DS amo	unts)	
Consolidated Income Statement Data:							-	
Amounts in accordance with German GAA. Net revenues	P 8,931	8,263	8,852	38,041	25	197	34.539	32,250
Total operating costs and expenses	(7,514)	(6,952)	(7,200)	(32,281		868)	(30,286)	(29,689)
Financial income (expense), net Results from ordinary business	`1,847′	(784)	(957)	(3,555	ý) (3,	288)	(4,003)	(3,944)
	1,279	1,183	1,206	5,513	5,	100	3,679	3,380
Extraordinary losses	 578	535	531	2,425	2,	 243	1,689	(1,265) 899
Earnings per share/ADS	0.21	0.19	0.19	0.88	. (	0.82	0.62	0.43
Amounts in accordance with U.S. GAAP								
	443	410	510	2,405		225	1,256	1,316
Earnings per share/ADS	0.16	0.15	0.19	0.88	, (	0.81	0.46	0.62
Consolidated Cash Flow Data: Net cash provided by operating	1,757	1 626	2.945	1/ 591	10	101	11,576	11 201
activitiesCapital expenditures	900	1,626 833	2,945 745	14,581 5,178		491 791	6,791	11,381 8,633
			At Marc	ch 31,		At Dec	ember 31,	
			1999(1)	1999	1998(1)	1998(2)	) 1997(2)	1996(2)
			\$	€ (botil	\$	€	€	€
			(unauc	iitea)	(in m	illions)		
Amounts in accordance with German GAA Fixed assets	erred inco		86,308 42,161 58,594	65,855 79,856 39,009 54,214 25,642	71,895 85,698 43,159 58,609 27,089	66,520 79,291 39,933 54,227 25,064	83,247 44,938 58,631	73,779 89,131 51,072 65,305 23,826
Amounts in accordance with U.S. GAAP				,	,	,		
Shareholders' equity				27,259	27,027	26,857		25,923
<ol> <li>Translated into U.S. Dollars at the (2) Amounts have been restated f established on January 1, 1999,</li> <li>Net revenues and total operatinadjusted to reflect the method camounts billed for other network purchased.</li> <li>Includes changes in the compositional provides and the compositing the compositing the compositional provides and the composi</li></ol>	rom De which wang costs of reportion	utsche M as €1.00 (includin ing used rs are no	arks in Eu = DM 1.955 g goods a by Deutsch longer show	uros usir 583. nd servi ne Teleko wn under	ng the c ces purc om for 1 r net reve	official f hased) 999. As enue an	ixed conve for 1998 of Januar d goods ar <b>ar ended De</b>	have been y 1, 1999, nd services cember 31,
Statistical Data:								
Average number (in millions, unless othern Standard telephone access lines         ISDN channels(1)         Mobile telephone subscribers         Cable subscribers(2)         T-Online subscribers         Average number of full-time equivalent em Access lines         Access lines         in service per employee	nployees (	(thousands)	)	· · · · · · · · · · · · · · · · · · ·		8.7 4.6 17.5 2.3 186	7 6.2 5 3.2 5 17.0 3 1.7 6 197 6 225	3.9 2.4 16.3 1.2 208 207
<ol> <li>Each basic access line provide channels.</li> <li>Includes households connected connected directly to Deutsche T</li> </ol>	through				-		-	

#### THE COMBINED OFFERING

The shares being offered by this prospectus are part of a combined offering of up to 250 million newly issued shares. The combined offering consists of a rights offering to existing holders of our shares or ADSs and a global offering consisting of a pan-European retail offering of shares in Germany, Austria, the Benelux countries, France, Italy, Spain, Finland, Portugal and Ireland, public offerings in the United States and Japan and private placements with institutional investors around the world.

The underwriters will agree with us to offer the new shares and ADSs to our existing shareholders and ADS holders for subscription in the rights offering. We expect that the Federal Republic and KfW, which together own approximately 72% of our outstanding shares, will declare that they will not exercise their subscription rights. The underwriters plan to offer the new shares attributable to these subscription rights, and new shares attributable to other rights that expire unexercised, for sale in the global offering.

You should bear in mind that the combined offering may be terminated at any time before the signing of the underwriting agreement and the registration of the capital increase relating to the combined offering, even with respect to rights that have been exercised. You should also bear in mind that if the combined offering is terminated, acquirors of rights in the secondary market may suffer a loss upon the rights becoming worthless.

We expect the underwriting agreement to be signed on or about June 25, 1999 and the capital increase to be registered promptly thereafter.

After the underwriting agreement is signed, the combined offering may be terminated only if all parties to the underwriting agreement so agree or if certain conditions are met. After the capital increase is registered, shareholders and ADS holders who have effectively exercised their rights will be entitled to receive the related shares or ADSs. See "Plan of Distribution".

Separate from the combined offering, we are offering up to 5,934,646 million newly issued shares to employees in an employee offering.

#### The Rights Offering

Our existing shareholders will receive transferable rights to subscribe for one new share for every 9.8 shares they hold. ADS holders of record at 5:00 p.m. (New York City time) on June 7, 1999 will receive transferable warrants to subscribe for one new ADS for every 9.8 ADSs held at that time.

The official subscription price in the rights offering is €45 for shares and the U.S. Dollar equivalent of that Euro amount translated into U.S. Dollars at the noon buying rate on the last day of the bookbuilding period for ADSs. However, if you exercise rights or warrants, you will be entitled to a reduction in the amount of the official subscription price if the market price of the shares at the close of the last day of the subscription period, or the initial price to the public for the shares in the global offering, is lower than the official subscription price. The market price for the purpose of this determination is the final auction price for Deutsche Telekom shares on the Xetra system of the Frankfurt Stock Exchange on the final day of the bookbuilding period for the global offering. The amount of the reduction would be the larger of

- the amount by which the subscription price exceeds the market price; and
- the amount by which the subscription price exceeds the initial price to public.

In addition to this potential price reduction, if you exercise rights or warrants, you will receive a discount of  $\in 2.00$  per share off the lowest of these three prices. The price after any applicable reduction or discount will be the price you actually pay. The amount of the reduction and of the discount for ADSs will be the U.S. Dollar equivalent of the Euro amounts translated into U.S. Dollars at the noon buying rate on the last day of the bookbuilding period.

The actual price you will pay for shares or ADSs in the rights offering (including the discount) will be available by calling toll free in the United States 1-800-697-3837 from 10:00 a.m. (New York City time) starting on June 27, 1999. The actual price also will be published in The Wall Street Journal on or about June 28, 1999 and made available over the Internet at http://www.telekom.de/us-offer.

We have set the official subscription price at a level that is intended to give us flexibility in setting the price for our shares in the bookbuilding process. The official subscription price gives you assurance that if there is a sudden increase in the price of our shares, you will not be obligated to pay more than a maximum amount.

Shareholders and ADS holders generally will be treated alike in the rights offering, except that:

- The timing of certain actions and periods will differ for ADS holders as opposed to shareholders;
- Holders of ADSs will be required to have delivered payment to the ADS subscription agent no later than June 28, while shareholders may be entitled to deliver payment later, depending on the nature of their contractual arrangements with their custodians;
- ADS holders will be obligated to make payment for their new ADSs in U.S. Dollars under an arrangement with the ADS subscription agent, unlike shareholders who pay in Euros; and
- ADS holders will have the option of paying an estimated subscription price in advance of the determination of the actual subscription price and receiving a refund if the estimated price is greater than the actual price, whereas shareholders will pay only the actual subscription price once it has been determined.

The custodian banks will sell rights allocated to shareholders who hold their ordinary shares through the custodian bank and do not exercise their rights by the appointed time on a best-efforts basis. The ADS subscription agent will sell warrants allocated to ADS holders who do not exercise their warrants before the expiration date for the account of the ADS holders. ADS holders who pay the estimated subscription price early and are entitled to a refund because the actual subscription price is less than the estimated subscription price or as a result of exchange rate fluctuations will not receive any interest on the excess refunded. Holders of ADS rights may also buy and sell those rights through the ADS subscription agent. The ADS subscription agent might not, however, buy and sell the rights at the best available price.

Retail investors who are natural persons holding a transaction account through one of the banks participating in the pan-European retail offering and who exercise rights in the rights offering may also become entitled to bonus shares. See "—Bonus Shares".

If you are a shareholder or ADS holder and are interested in subscribing for new shares or ADSs in the rights offering, the procedures for doing so are described below under "The Rights Offering". That section also contains information about how you may sell rights or warrants. If you are interested in purchasing rights or warrants, whether or not you currently hold Deutsche Telekom shares or ADSs, you will also find important information under "The Rights Offering".

# The Global Offering

The number of shares offered in the global offering and the initial price to public will be determined at the end of the bookbuilding period. The initial price to public will not exceed  $\in$ 45 per share or the U.S. dollar equivalent of  $\in$ 45 per share translated at the noon buying rate on the last day of the bookbuilding period per ADS. The global offering will have two parts: the pan-European retail offering and an international offering that will include public offerings in the United States and Japan and private placements with institutional investors around the world.

As part of the global offering, Deutsche Telekom will grant an option to the underwriters to purchase up to 29,969,388 additional shares to cover over-allotments.

#### Pan-European Retail Offering

We are offering shares to retail investors in Germany, Austria, the Benelux countries, France, Italy, Spain, Finland, Portugal and Ireland. We are also providing retail investors in Europe with incentives to subscribe for our shares in the pan-European retail offering.

Retail investors who are natural persons holding a transaction account with one of the banks participating in the pan-European retail offering and who subscribe for shares in the early order period, which will begin on June 7 and end on June 15, 1999, will receive their shares at the initial price to public in the global offering less a discount of  $\in$ 2.00.

You must order at least 50 shares to participate in the pan-European retail offering. There is no maximum order size.

If you participate in the pan-European retail offering, you may also become entitled to bonus shares. See "-Bonus Shares".

#### International Offering

We are offering shares to institutional investors throughout Europe, in public offerings in the United States and Japan, and in private placements around the world. Shares in the international offering, including the offering to the public in the United States and Japan, are being offered at the initial price to public. Those investors will not be entitled to the discount or any bonus shares. The underwriters in the international offering may elect to receive all or a portion of their shares in the form of ADSs.

# The Employee Offering

To encourage employee ownership of its shares, Deutsche Telekom intends to issue up to 5,934,646 shares for sale in a non-public offering to employees of Deutsche Telekom and its subsidiaries. Under a plan developed by Deutsche Telekom, employees will be offered incentives to purchase shares in addition to those offered to investors in the pan-European retail offering. Each employee may purchase 10 shares at the initial price to public in the global offering less the discount available to retail investors who hold an account with a bank participating in the pan-European retail offering and place orders during the early order period and less a further discount of €14.56 per share. DG Bank Deutsche Genossenschaftsbank is underwriting the shares to be sold in the employee offering. This employee offering is separate from the combined offering.

In addition, each employee of Deutsche Telekom is entitled to a guaranteed allocation of up to 200 shares on the same terms offered to investors who order early in the pan-European retail offering, but without any further discount.

If employee demand for shares in the employee offering exceeds the maximum capital increase for the non-public offer, the shortfall may be covered by an allocation of up to 365,359 shares from the global offering to the employees on the same terms as those given to European retail investors who place orders during the early order period.

#### **Bonus Shares**

Retail investors who are natural persons holding a transaction account with a bank participating in the pan-European retail offering and who order shares in the pan-European retail offering during the early order period (June 7 through June 15) and can demonstrate continuous holding of the new shares through August 31, 2000 will be entitled to receive bonus shares in a ratio of one bonus share for every ten new shares held. Retail investors who are natural persons holding a transaction account with a bank participating in the pan-European retail offering and who acquire shares in the rights offering will also be entitled to bonus shares at this ratio if they can demonstrate continuous holding of the new shares through August 31, 2000. Fractional shares will not be issued. The bonus shares will come from

outstanding shares held by the Federal Republic, rather than shares newly issued by Deutsche Telekom. Deutsche Telekom has appointed an independent auditing firm to monitor and review the rules and procedures for the bonus plan.

# Form and Settlement

The shares offered in the combined offering will initially be represented by global share certificates with global dividend coupons attached. The global shares will be deposited with the Deutsche Börse Clearing AG ("DBC") as share depositary. The shares purchased in the combined offering may be credited at the option of investors either to the account of a German bank with DBC for the account of such investor or to the accounts of participants with Euroclear or Cedelbank. Shares held by the Depositary referred to under "Description of American Depositary Receipts" will be credited to the DBC account of the custodian for the Depositary. The ADSs have been accepted for clearance through the facilities of The Depository Trust Company ("DTC").

Settlement will occur on the second business day following the initial sale of the new shares. Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended, trades in the secondary market generally are required to settle in three business days, unless the parties to a trade expressly otherwise agree. Accordingly, purchasers of shares in the combined offering will be required to settle sooner than would be customary in the United States. In this regard, if you are exercising a warrant to acquire new ADSs, you will be required to pay the subscription price to Citibank, N.A. by June 28, 1999, so that Citibank will be able to pay the subscription price for the new shares underlying your new ADSs by June 30, 1999. The actual subscription price will not be available until after the pricing of the global offering, which is expected to be completed by June 27, 1999. To avoid the risk of a settlement default, you will have to arrange for a hand delivery of a certified check or bank draft to Citibank the next day. For additional information, you should contact Citibank at 1-800-Citi-ADR. You may therefore wish to consider paying in advance an estimated subscription price for shares on June 21, 1999. We provide further instructions in this regard under "The Rights Offering".

The German Securities Code *(Wertpapier-Kenn-Nummer)* (WKN) for the shares is 555 700. The International Securities Identification Code (ISIN) for the shares is DE 000 555 700 3 and the Common Code for the shares is 6690142. The CUSIP number of the ADSs is 251566105.

# **USE OF PROCEEDS**

Deutsche Telekom will receive the net proceeds of this offering. On the assumption that:

- all of the shares are sold either in the rights offering or to retail investors in the pan-European retail offering who order early; and
- the shares in both offerings are sold at €39.05 (the final auction price for Deutsche Telekom shares on the Xetra trading system of the Frankfurt Stock Exchange on June 2, 1999),

Deutsche Telekom estimates that the aggregate proceeds of the offering would be approximately €9.76 billion (approximately €10.93 billion if the underwriters exercise their option to acquire additional shares in full). These estimates do not include estimated proceeds of the employee offering. The actual net proceeds from the combined offering will depend on the actual prices paid for the shares and the ADSs, the amount of the underwriters' discounts and commissions, and the total expenses of the offering, which Deutsche Telekom does not expect to be determined until after the end of the bookbuilding period. Initially, Deutsche Telekom will deposit the net proceeds of this offering with banks or invest the net proceeds in short-term, high quality debt obligations. Thereafter, Deutsche Telekom will use net proceeds primarily for acquisitions of, or investments in system solution providers, European and U.S. telecommunications operators, Internet protocol providers, telecommunications networks and related businesses and to strengthen its capital base, as well as for general corporate purposes.

# **DIVIDEND POLICY**

The shares and ADSs offered by this prospectus will have the same dividend rights as the outstanding shares and ADSs.

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

Year Ended December 31,	Dividend Paid per Ordinary Share		
	DM	US\$(1)	
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.

For financial year 1998, Deutsche Telekom paid an aggregate cash dividend of €1.7 billion, representing 75% of net income. The dividend levels in past years may not be indicative of future dividends.

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, as described more fully below under the heading "Relationship with the Federal Republic." 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 Used For (Provided by) 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, in particular in connection with the dividend in respect of 1999. Dividends paid will be subject to German withholding tax. For further information on German withholding tax and related United States refund procedures, see "Taxation."

# **EXCHANGE RATE INFORMATION**

To comply with the requirements of the German Commercial Code (Handelsgesetzbuch), Deutsche Telekom has prepared its consolidated financial statements in Deutsche Marks. Deutsche Telekom is presenting the consolidated financial statements in this prospectus in Euros. Accordingly, it has translated the consolidated financial statements into Euros for each period presented using the official fixed conversion rate of  $\in 1.00 = DM 1.95583$ . As used in this document:

- "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;
- "Euro" or "€" means the new single unified currency that was introduced in the Federal Republic and ten other participating member states of the European Union on January 1, 1999;
- "U.S. Dollar", "Dollar" or "US\$" means the lawful currency of the United States of America;
- "ECU" means the European Currency Unit;
- "FF" means the lawful currency of France;
- "HUF" means the lawful currency of Hungary;
- "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 any particular rate or at all.

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 Deutsche Telekom's consolidated financial statements.

Effective January 1, 1999, Germany and ten other member states of the European Union adopted the Euro as their common currency. Amounts stated in Euros appearing in this prospectus for periods prior to December 31, 1998, have been translated from Deutsche Marks at the official fixed conversion rate. Unless otherwise stated, Dollar amounts have been translated from Deutsche Marks at the noon buying rate in New York City for cable transfer in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the "Noon Buying Rate") on December 31, 1998, which was DM 1.6670 per US\$1.00. This rate may differ from the actual rates Deutsche Telekom used in the preparation of its consolidated financial statements as of December 31, 1998. Accordingly, Dollar amounts appearing herein may differ from the actual Dollar amounts that Deutsche Telekom originally translated into Deutsche Marks (and subsequently translated into Euros) in the preparation of its financial statements. After the introduction of the Euro on January 1, 1999, the Federal Reserve Bank of New York ceased to quote Noon Buying Rates for the Deutsche Mark. Therefore, certain amounts stated in

Dollars appearing in this prospectus for the period commencing January 1, 1999, have been translated from Euros into Dollars at the Noon Buying Rate indicated.

The following table sets forth, for the periods and dates indicated, the average, high, low and period-end Noon Buying Rates for the Deutsche Mark (shown converted into Euros at the official fixed conversion rate and expressed as Dollars per  $\in$ 1.00) and, for the period from January 1 through May 25, the average, high, low and period-end Noon Buying Rates for the Euro expressed in Dollars per  $\in$ 1.00.

Year	Average (1)	High	Low	Period- End
1994	1.2134	1.3109	1.1096	1.2622
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 (through June 2, 1999)	1.0832	1.1812	1.0357	1.0357

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

On June 2, 1999, the Noon Buying Rate for the Euro was  $\in 0.96553$  per US\$1.00, which if expressed in Deutsche Marks would have been equivalent to a rate of DM 1.8884 per US\$1.00, translated from Euros at the official fixed conversion rate.

Commencing 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 ADSs on conversion of cash dividends on the shares represented by your ADSs.

### MARKET INFORMATION

#### 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. Currently, Deutsche Telekom has issued all shares in bearer form, although Deutsche Telekom intends to convert its shares to registered form in the course of 1999.

Deutsche Telekom has listed American Depositary Shares, each representing one Deutsche Telekom share, on the New York Stock Exchange, trading under the symbol "DT". The depositary for the ADSs is Citibank N.A. As of May 24, 1999, there were 24,420,450 ADRs outstanding, with 339 holders of record of ADSs with addresses in the United States and 55 holders of record of ADSs with addresses outside the United States. Approximately 7,682 ADRs were held of record by holders with non-U.S. addresses. Since Deutsche Telekom's shares are in bearer form, Deutsche Telekom does not have precise information regarding the percentage of its shares held by U.S. holders. Deutsche Telekom estimates, however, that around 25% of its shares not represented by ADSs (excluding shares held by the Federal Republic and KfW) are held by investors in the United States.

#### 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:

	Price per ADS		
	High	Low	
	US\$		
1996			
Fourth Quarter (from November 18, 1996)	21 5⁄8	20 1⁄4	
1997			
First Quarter	22 5⁄8	<b>18</b> ¼	
Second Quarter	24 7⁄8	20 3⁄4	
Third Quarter	<b>24</b> <sup>1</sup> 1⁄16	18 5%	
Fourth Quarter	<b>20</b> <sup>13</sup> ⁄16	16 3%	
1998			
First Quarter	22 7⁄8	<b>17</b> ¼16	
Second Quarter	<b>28</b> 5⁄16	<b>21</b> ½	
Third Quarter	32	24	
Fourth Quarter	33 1/2	26 1⁄4	
1999			
First Quarter	47 <sup>1</sup> ⁄8	<b>36</b> ¼6	
Second Quarter (through June 2, 1999)	<b>45</b> <sup>1</sup> ⁄16	36 1⁄4	

On June 2, 1999, the closing sales price per ADS on the NYSE was US\$401%.

# 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 accounted for approximately 78.8% of the turnover in exchange-traded shares in Germany in 1998. As of December 31, 1998, the shares of 600 companies traded on the official and regulated markets of the Frankfurt Stock Exchange. Of these, 398 were German companies and 202 were foreign companies.

Trading on the floor of the Frankfurt Stock Exchange begins every business day at 8:30 a.m. and ends at 5:00 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*).

	Price Per Price Ordinary Ordir Share Sha		nary	DA	AX(1)	
	High	Low	High	Low	High	Low
	Eu	iro	D	М		
1996						
Fourth Quarter (from November 18, 1996)			33.49	31.44	2,900.76	2,654.34
1997						
First Quarter	_		38.41	29.86	3,439.22	2,820.81
Second Quarter			43.11	35.70	3,820.16	3,210.94
Third Quarter			44.20	32.95	4,428.08	3,796.61
Fourth Quarter			36.95	30.30	4,326.35	3,645.69
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	43.54	31.35			5,442.90	4,668.52
Second Quarter (through June 2)	41.70	34.21	_		5,383.78	4,901.81

On June 2, 1999, the closing sales price per share on the Frankfurt Stock Exchange was €39.05.

(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 June 2, 1999, the closing sales price per share on the Frankfurt Stock Exchange was €39.05, equivalent to DM 76.38 per share, translated at the exchange rate fixed on January 1, 1999, and US\$40.44 per share, translated at the Noon Buying Rate for June 2, 1999.

# **RELATIONSHIP WITH THE FEDERAL REPUBLIC**

#### Shareholding

The capital stock of Deutsche Telekom consists of ordinary shares with no par value, which are issued only in bearer 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. As part of Postreform II, 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.

As a result of Deutsche Telekom's initial public offering in November 1996, the Federal Republic's ownership interest in Deutsche Telekom was reduced to approximately 74.0%. In a series of transfers that commenced in January 1998, the Federal Republic transferred shares representing an aggregate 25.8% holding in Deutsche Telekom's shares to KfW. These transfers reduced the Federal Republic's direct ownership interest in Deutsche Telekom to approximately 48.2% by March 31, 1999. Because KfW is a government-sponsored development bank that is 80% owned by the Federal Republic and 20% owned by German state governments, the Federal Republic remains 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. In December 1998, KfW transferred shares representing a 2% ownership interest in Deutsche Telekom to France Telecom and, as a result, reduced its interest to approximately 23.8%.

Deutsche Telekom expects that the Federal Republic and KfW will declare that they will not exercise their preemptive rights with respect to the shares being offered in the global offering. Deutsche Telekom expects that, upon the completion of the combined offering and the employee offering, the Federal Republic and KfW together will own 65.2% of the shares of Deutsche Telekom, assuming the issuance of 285,904,034 million new shares upon full exercise of the underwriters' overallotment option.

As part of the legislative process relating to the enactment of Postreform II, the responsible legislative committee stated in its statement of legislative intent that the Federal Republic would de facto retain a majority shareholding in Deutsche Telekom for a number of years because the sale of shares by the Federal Republic is, in principle, prohibited through December 31, 1999, and because the issuance of new shares to increase Deutsche Telekom's equity is granted priority. The priority granted to Deutsche Telekom by Postreform II is intended to permit Deutsche Telekom for a five-year period to access the public capital markets to raise new capital before the Federal Republic accesses the public capital markets to sell shares. The committee stated further that, in view of the possible sale of shares by the Federal Republic to strategic investors, sales of shares by the Federal Republic other than in the public capital markets are to be made only with the consent of Deutsche Telekom's Board of Management. Deutsche Telekom has stated that it will only give this consent if the transferee of the shares is subject to the same restrictions to which the Federal Republic is subject. Deutsche Telekom consented to the Federal Republic's transfer of shares to KfW. KfW is required to refrain from selling these shares until December 31, 1999, other than to strategic investors, which would then be made subject to the same restrictions. The Federal Republic has agreed to monitor compliance with these requirements.

The provisions of Postreform II that inhibit the ability of the Federal Republic and KfW to sell shares of Deutsche Telekom will cease 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. Deutsche Telekom expects to consider requests from the Federal Republic and KfW for clearance to dispose of Deutsche Telekom shares by means of exchangeable debt offerings after December 31, 1999.

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 was established pursuant to Postreform II and 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 (*Haushaltsgrundsätzegesetz*), 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 and books and accounts. Similar rights apply with respect to those subsidiaries of Deutsche Telekom that so provide in their articles of incorporation. In making reports to the Federal Republic, Supervisory Board members who are elected on the initiative of the Federal Republic are not generally subject to the 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 Telekoms 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 1998 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 1998 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 Postreform II, 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 Postbank. The Federal Agency has the right to provide advice concerning the coordination of the activities of Deutsche Telekom, Deutsche Postbank and 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 Postreform II 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 Postreform II 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  $\in$ 89 million for these services in 1998 ( $\in$ 105 million in 1997).

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 (*Bundeshaushaltsordnung*).

#### 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 "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

On May 19, 1999, Deutsche Telekom announced that it plans 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 approximately 2,250 Deutsche Telekom employees to Deutsche Post.

#### **Federal Republic Guarantees**

Pursuant to Postreform II, 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 Postreform II, 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".

# CAPITALIZATION

The following table sets forth the cash and other liquid assets, current debt, long-term debt, shareholders' equity and capitalization of Deutsche Telekom in accordance with German GAAP at March 31, 1999 and as adjusted to reflect the issuance of the shares in the combined offering and application of the estimated aggregate proceeds of the offering, estimated at €9.76 billion. This estimate is based on the assumption used under "Use of Proceeds" to estimate the aggregate proceeds of the offering and not the assumption that the underwriters do not exercise their overallotment option. You should read this table in conjunction with the annual financial statements and the unaudited interim financial statements of Deutsche Telekom, including the notes to those financial statements.

	At March 31, 1999			
	Actual As Adjuste			justed
	€	\$(1)	€	\$(1)
		(in mi	llions)	
Liquid assets	4,004	4,327	13,764	14,877
Current debt(2)	4,277	4,623	4,277	4,623
Long-term debt:				
Bonds and debentures	31,336	33,868	31,336	33,869
Liabilities to banks	3,396	3,670	3,396	3,670
Total long-term debt	34,732	37,538	34,732	37,538
Shareholders' equity:				
Capital stock	7,014	7,581	7,654	8,273
Additional paid-in capital	14,250	15,401	23,370	25,259
Retained earnings	1,338	1,446	1,338	1,446
Unappropriated net income(3)	1,696	1,833	1,696	1,833
Net income	535	578	535	578
Minority interest	809	875	809	875
Total shareholders' equity	25,642	27,714	35,402	38,264
Total capitalization	60,374	65,252	70,134	75,804

(1) Translated into U.S. Dollars at the Noon Buying Rate on March 31, 1999 of €0.9252 to US\$1.00.

(2) Includes the current portion of long-term debt.

(3) In May 1999, Deutsche Telekom declared an aggregate dividend of €1.7 billion in respect of 1998, which has been paid.

#### FIRST QUARTER RESULTS AND OUTLOOK

#### Overview

Deutsche Telekom's consolidated net revenue for the first quarter of 1999 decreased by €0.6 billion compared with the same period last year. This was mainly attributable to the decrease in call charges for long-distance and international calls. The decrease in revenue was offset in part by reductions in costs of approximately €0.4 billion. Personnel costs decreased slightly as a result of the continued workforce reduction program. A reduction in financial liabilities led to a scheduled decrease of interest expense of approximately €0.1 billion. Depreciation and amortization decreased further by approximately €0.2 billion. This decrease was mainly attributable to the extention of the depreciation period for certain network assets. In total, Deutsche Telekom's results from ordinary business activities decreased slightly by 1.9% to €1,183 million. As a result of a decrease in the effective tax rate, net income was €535 million and thus slightly higher than in the first quarter of 1998.

		month March 3	s ended 31,
	1999(1)	1999	1998(2)(3)
Consolidated Income Statement Data:		€ unaudit in billio	
Amounts in accordance with German GAAP         Net revenue         Changes in inventories and other own capitalized costs         Other operating income         Goods and services purchased         Personnel costs         Depreciation and amortization(4)         Other operating expenses         Total operating expenses         Financial income (expense) net         Results from ordinary business activities	9.0 0.2 0.4 (1.6) (2.5) (2.0) (1.3) (7.4) (0.9) 1.3	8.3 0.2 0.4 (1.5) (2.3) (1.9) (1.2) (6.9) (0.8) 1.2	(2.3) (2.1) (1.2) (7.1)
Taxes Income after taxes	(0.6) 0.7 (0.2)	<u>(0.6)</u> 0.6 (0.1)	<u>(0.6)</u> 0.6 (0.1)
Net income	0.5 0.21	0.5 0.19	0.5 0.19
Net income	0.4 0.16	0.4 0.15	0.5 0.19
Consolidated Cash Flow Data: Net cash provided by operating activities	1.7 (0.9) (1.0) (0.2) 0.9 At	1.6 (0.9) (0.9) (0.2) 0.8 March	(0.8) 0.5 0.7
	1999(1)	1999	1998(2)
Consolidated Balance Sheet Data:		€ unaudi in billio	
Amounts in accordance with German GAAP Noncurrent assets Current assets, prepaid expenses, deferred charges Shareholders' equity Accruals Debt Other liabilities and deferred income Balance sheet total Amounts in accordance with U.S. GAAP	71.2 15.1 27.7 9.7 42.2 6.7 86.3	65.9 14.0 25.6 9.0 39.0 6.3 79.9	68.8 15.0 25.2 8.3 44.2 6.1 83.8

Amounts in accordance with U.S. GAAP Shareholders' equity

(1) Translated into U.S. Dollars at the Noon Buying Rate on March 31, 1999 of €0.9252 to \$1.00.

(2) Amounts have been restated from Deutsche Marks in Euros using the official fixed conversion rate established on January 1, 1999, which was €1.00 = DM 1.95583.

27.3

29.5

26.7

(3) Net revenues and total operating costs for 1998 have been adjusted to reflect the method of reporting used by Deutsche Telekom for 1999. As of January 1, 1999, amounts billed for other network operators are no longer shown under net revenue and goods and services purchased.

(4) Figure for 1999 reflects extension of depreciation periods for the outside plant network.

#### Revenue

The following table shows Deutsche Telekom's consolidated net revenue broken down by major business area for the three month periods ended March 31, 1999 and 1998.

	end	nonths led h 31,	Three months ended March 31,	
	1999	1998	1999/1998	
	(Euro in	millions)	(% change)	
Telephone network communications	4,355	5,451	(20.1)	
Licensed service providers and carriers	568	315	80.3	
Data communications(1)	623	619	0.6	
Mobile communications	849	681	24.7	
Broadband cable/Broadcasting	472	432	9.3	
Terminal equipment(2)	309	355	(13.0)	
Special value-added services	476	476	0.0	
Other services(3)	252	197	27.9	
International activities	359	326	10.1	
Total	8,263	8,852	(6.7)	

 Including revenue from systems solutions. Revenue shown for the first quarter of 1998 was adjusted due to a reclassification in the data communications business area. Revenue amounting to €7 million was reclassified from data communications to telephone network communications.

(2) Beginning in 1999, certain revenues from support services for terminal equipment are no longer shown under terminal equipment, but under other services. Accordingly, revenues of €29 million for the first quarter of 1998 have been reclassified.

(3) As from January 1, 1999, revenues from the billing of services of other network operators are no longer included in other services. Revenues from other services for the three months ended March 31, 1998 have been correspondingly adjusted downward by €6 million.

The consolidated net revenue of Deutsche Telekom totaled €8,263 million in the first quarter of 1999. This represents a decrease of 6.7% compared with the same period in 1998.

Deutsche Telekom's largest source of revenue, telephone network communications, generated revenue of  $\in$ 4,355 million in the first quarter of 1999, a decrease of 20.1% as compared to the first quarter of 1998. This decrease is due to tariff cuts which came into effect on March 1, 1998 and January 1, 1999 and to the influence of competition in this area, which was not highly significant during the first quarter of 1998 but which intensified in the remainder of the year. Increasing competition affected domestic and international long-distance calls in particular. Growth in the number of ISDN access lines by 7.9% from 10.1 million at December 31, 1998 to 10.9 million as at March 31, 1999 positively influenced revenue from telephone network communications.

The decrease in revenue from telephone network communications was partially offset by significant growth in revenue from interconnection services (i.e., licensed service providers and carriers), which resulted from the arrival of competition. Revenues from data communications remained at the same level as in the first quarter of 1998.

Revenue from mobile communications increased by 24.7% in the first quarter of 1999 over the same period in 1998. Significant revenue growth was recorded by T-D1, Deutsche Telekom's digital mobile service, primarily as a result of an increase in the number of subscribers, which grew by 9.1% from 5.5 million at December 31, 1998 to 6.0 million at March 31, 1999. Revenue from the analog T-C-Tel service, however, fell as the number of subscribers continued to decrease.

Revenue in the broadband cable and broadcasting business area increased by 9.3% compared to the first quarter of 1998 to €472 million. Revenue in the terminal equipment business area

decreased by 13.0% compared to the first quarter of 1998 to  $\in$  309 million principally as a result of streamlining the product portfolio. At  $\in$  476 million, revenue from the special value-added services business area remained essentially unchanged from the first quarter of 1998.

Revenue in the other services business area increased by 27.9% to €252 million in the first quarter of 1999. This increase was due primarily to the growth of T-Online. The number of T-Online customers rose by 11.1% from 2.7 million at December 31, 1998 to 3.0 million at March 31, 1999.

Revenue of €359 million from international activities in the first quarter of 1999, which represents an increase of 10.1% over the same period in 1998, was due mainly to the performance of the Hungarian telecommunications company MATÁV.

#### Personnel

	Three months ended March 31,		Three months ended March 31,	
	1999 1998		1999/1998	
		o in ons)	(% change)	
Wages and salaries Social security contributions and expenses for pension plans and	1,625	1,626	(0.1)	
benefits	670	683	(1.9)	
Total	2,295	2,309	(0.6)	

Deutsche Telekom's personnel costs in the first three months of 1999 amounted to  $\in 2,295$  million, which represents a decrease of 0.6% or  $\in 14$  million compared with the same period in 1998. This decrease is primarily attributable to the continuing implementation of Deutsche Telekom's workforce reduction program. The reduction in costs resulting from this program was, however, largely offset by a one-time payment to employees during the first quarter of 1999, pay increases under eastern German collective bargaining agreements intended to reduce the difference between salaries in eastern Germany and western Germany, age-related salary increases and the review of salaries in some areas to bring them in line with market conditions. The annual civil servant pension contribution of DM 2.9 billion ( $\in 1.5$  billion), which is not linked to the number of employees, led to a nominal increase in personnel costs per employee as a result of the decrease in the number of employees of Deutsche Telekom. Starting in the year 2000, the current system of contributing to civil service pensions will change so that it will correlate with the number of civil servant employees.

#### Depreciation and amortization

		months Iarch 31,	Three months ended March 31,
	1999	1998 1999/1998	
	(Euro in	millions)	(% change)
Depreciation and amortization	1,909	2,127	(10.2)

Depreciation and amortization amounted to  $\in$ 1,909 million during the first quarter of 1999, a 10.2% decrease compared to the first quarter of 1998. Of this decrease, approximately  $\in$ 0.2 billion is attributable to the extension of depreciation periods for the outside plant network. This adjustment followed a reevaluation of the physical and economic useful life of network equipment. Approximately 80% or  $\in$ 1.5 billion of the depreciation and amortization in the Deutsche Telekom group is attributable to depreciation of technical equipment and machinery. Nonscheduled write-downs amounting to  $\in$ 4 million were recognized in the first quarter of 1999.

#### Changes in net income

Deutsche Telekom's results from ordinary business activities amounted to  $\in$ 1,183 million in the first quarter of 1999, a slight decline from the same period in 1998. These results were influenced by a number of developments. Primarily as a consequence of the price reductions in the telephone network communications business area that were implemented on March 1, 1998 and January 1, 1999, revenue in the first quarter of 1999 fell by  $\in$ 589 million compared to the first quarter of 1998. This decrease in revenue was largely offset by reductions in costs. Although the level of goods and services purchased increased by  $\in$ 17 million, personnel costs were reduced by a further  $\in$ 14 million as a result of the continuing workforce reduction program and despite salary increases under collective bargaining agreements. Depreciation and amortization decreased by  $\in$ 218 million compared with the same period last year. This is mainly attributable to the extension of depreciation periods on certain items of property, plant and equipment. Financial expense was reduced by a total of  $\in$ 173 million, both as a result of the scheduled decrease in interest expense and due to a further decrease in losses related to associated and related companies.

	(Euro in millions)
Decrease in revenue	(589)
Changes in goods and services purchased	(17)
Decrease in personnel costs	14
Decrease in depreciation and amortization	218
Changes in financial income (expense)	173
of which: changes in net interest expense	114
Changes in other income and expense items	178
Total	(23)

Tax expense decreased by a total of  $\in$ 32 million in the first quarter of 1999 compared with the same period in 1998, primarily due to tax refunds. As a result, net income of Deutsche Telekom in the first quarter of 1999 amounted to  $\in$ 535 million, slightly higher than in the first quarter of 1998.

#### Reconciliation of net income from German GAAP to U.S. GAAP

	Three months ended March 31,	Three months ended March 31,		
	1999 1998	1999/1998	Total 1998	
	(Euro in millions)	(% change)	(Euro in millions)	
Net income as reported in the consolidated financial				
statements under German GAAP	535 531	0.8	2,243	
Personnel restructuring accrual	(27) (67)	—	(286)	
Other differences	87 44		65	
Income taxes	(185) 2		203	
Net income in accordance with U.S. GAAP	410 510	(19.6)	2,225	

As at March 31, 1999, shareholders' equity under U.S. GAAP totaled €27,259 million (December 31, 1998: €26,857 million).

#### Investments

	Three months ended March 31,		Three months ended March 31,		
	1999	1998	1999/1998	Total 1998	
	(Euro in (% change) millions)		(Euro in millions)		
Intangible assets and property, plant and equipment	834	744	12.1	4,788	
Financial assets	647	381	69.8	2,738	
Total	1,481	1,125	31.6	7,526	

Additions to property, plant and equipment, which relate mainly to Deutsche Telekom AG, amounted to  $\in$ 795 million in the first quarter of 1999. After the completion at the end of 1997 of the digitization of the network's switching and transmission equipment, as well as of the development program for eastern Germany, capital expenditure on property, plant and equipment remained at a low level as planned. Additions to financial assets in the first quarter of 1999 amounted to  $\in$ 647 million,  $\in$ 265 million of which are attributable to investments in associated and related companies. Deutsche Telekom also invested  $\in$ 275 million in specialized securities funds (in US dollars).

#### **Financial liabilities**

	At March 31, 1999
	(Euro in millions)
Debt	39,009
Debt excluding MATÁV	38,309
Net financial liabilities(1)	33,231

(1) Debt less liquid assets and marketable securities.

In order to broaden its sources of funding, Deutsche Telekom increased the volume of its debut benchmark bond floated in May 1998 by approximately  $\in$  1.0 billion to a total of  $\in$  2.0 billion on January 12, 1999. At the end of March 1999, total debt amounted to approximately  $\in$  39.0 billion, as compared with  $\in$  39.9 billion at December 31, 1998. Future repayment of debt is expected to continue as planned. The goal is to reduce total debt to approximately  $\in$  33 billion by the year 2000. Deutsche Telekom's net financial liabilities, after taking into account liquid assets of  $\in$  4.0 billion and marketable securities of  $\in$  1.8 billion, amounted to  $\in$  33.2 billion at March 31, 1999.

# **Cash flows**

#### Net cash provided by operating activities

Net cash provided by operating activities amounted to  $\in$ 1,626 million in the first three months of 1999. The decrease of  $\in$ 1,319 million compared with the corresponding period in 1998 resulted primarily from revenue losses as a consequence of tariff cuts. In addition, accounts receivable increased and trade accounts payable decreased in the first quarter of 1999, whereas accounts receivable had decreased and trade accounts payable had increased in the first quarter of 1998.

#### Net cash used for investing activities

Net cash used for investing activities amounted to  $\in$ 877 million in the first quarter of 1999, a decrease of  $\in$ 773 million compared with the first quarter of 1998. With a slight increase in investments in noncurrent assets, attributable in particular to increased levels of investment in financial assets, this decrease in net cash used for investing activities was mainly due to an increase in liquid assets from a reduction in temporary fixed-term bank deposits.

#### Net cash used for financing activities

In the first three months of 1999, the outflow of cash used for financing activities increased by €145 million over the same period in 1998 to €933 million. The increased outstanding principal amount of the debut benchmark bond resulted in a considerably higher cash inflow, but this was more than offset by higher repayments of short-term debt. As was the case in the same period last year, dividend payments for the 1998 financial year are not included in net cash used for financing activities.

	Net revenue	Revenue between segments	Depreciation and amortization (Euro in m	Net interest expense illions)	Income (loss) related to associated and related companies	Income before taxes	Return on sales: 1st quarter 1999 in %	Return on sales: Total 1998 in %
Telephone network								
communications	4,355	198	(1,043)	(323)		892	20.5	23.4
Mobile	0.40	004	(07)	(07)		005	077	00.0
communications	849	221	(87)	(37)		235	27.7	22.0
Broadband cable/broadcasting	472	30	(219)	(96)		(75)	(15.9)	(18.0)
Terminal equipment	309	30 46	(38)			(75) 8	2.6	(18.0)
Special value-added	309	40	(30)	(14)		0	2.0	(0.2)
services	476	70	(51)	(15)		90	18.9	(8.8)
International	470	10	(01)	(10)		50	10.5	(0.0)
activities	347	3	(62)	(33)		67	19.3	20.2
Other segments	1,443	657	(406)	(166)	(105)	(21)	(1.5)	(0.8)
Reconciliation <sup>(2)</sup>	12	(1,225)	(3)	3	2	(13)		
Group	8,263	0	(1,909)	(681)	(103)	1,183	14.3	14.5

# Segment information in accordance with SFAS No. 131(1)

 Deutsche Telekom began applying U.S. Statement of Financial Accounting Standards (SFAS) No. 131 for segment reporting in its consolidated financial statements for the period ended December 31, 1998.

(2) Predominantly consolidation entries and differences between the composition of the Deutsche Telekom group for management reporting and for financial reporting purposes. The net revenue shown here relates to subsidiaries which are otherwise shown in the consolidated financial statements under international activities.

Although Deutsche Telekom's net revenue decreased in comparison to the first quarter of 1998, its return on sales, compared with the full year 1998, remained stable at approximately 14% in the first quarter of 1999. The decrease in the return on sales from telephone network communications was largely offset by an increased return on sales from the other areas. The return on sales from mobile communications, for example, increased from 22.0% to 27.7%. The return on sales from broadband cable/broadcasting area improved from -18.0% for the full year to -15.9%. Terminal equipment as well as special value-added services achieved positive results. The return on sales amounted to 2.6% and 18.9% for terminal equipment and special value-added services, respectively. The return on sales from on sales from on sales from on sales from 19.3%. In telephone network communications, the return on sales decreased from 23.4% for the full year to 20.5%, as a result of the drastically reduced margins on long-distance and international calls.

## Outlook for 1999

#### Revenues

For 1999, Deutsche Telekom expects current overall trends in the German telecommunications market to continue, with volume growing and prices declining.

On January 1, 1999, Deutsche Telekom introduced significant price cuts for long distance calls, combined with a simplified tariff structure. A further reduction in night-time long distance rates went into effect in April 1999. Additional rate cuts are expected. The goal of these price measures is to stabilize market share. Deutsche Telekom expects that the resulting significant reduction in revenues from long distance calls will be partially offset by an increase in revenues from initial connection fees and monthly rental charges. This increase is expected to come from an influx of users to higher quality services such as ISDN, T-Net Box or T-Net 200, which are currently being encouraged by lower telephone usage tariffs that are available only to users of these services. Overall, however, even assuming a stable market share, revenues from telephone network communications are expected to decline. There is opportunity and risk in these tariff initiatives: while there is some prospect for winning back market share, there remains the risk that the rate cuts will not be as successful in the market as is hoped.

Increasing revenues in other business areas should further offset the decline in fixed network revenues. Increasing mobile revenues, reflecting the rapidly expanding mobile telephone markets, will be especially significant in this respect. In addition, Deutsche Telekom expects further revenue growth in data communications and systems solutions, which also achieved strong growth rates in 1998.

In Deutsche Telekom's Other Services business area, T-Online, which is Europe's largest provider of online services, is poised for further rapid growth. Deutsche Telekom expects that T-Online will benefit from the rapidly increasing popularity of the Internet and online services in Germany and, following the planned expansion of T-Online into international markets, abroad.

Deutsche Telekom also expects that revenues from the international activities area will increase in importance during 1999. Revenue increases are not expected to be confined to the activities of MATÁV in Hungary. For example, the acquisition of a majority stake in max.mobil.—the second largest mobile operator in Austria—should increase revenue as max.mobil. is fully consolidated into Deutsche Telekom's group.

Overall, Deutsche Telekom expects that, in the absence of unforeseen developments, the 1999 revenues of Deutsche Telekom will approximate the levels achieved in 1998. Revenue reductions driven by price decreases in the domestic market for fixed network telephony should be offset by the growth and expansion of promising business areas as well as increases from expansion abroad.

Deutsche Telekom expects that, despite anticipated cost reductions, pressure on operating margins will continue. Accordingly, to achieve 1999 net earnings and earnings per share (after giving effect to the capital increase) at or above 1998 levels, a contribution from the sale of interests in its cable business or other one time effects will be needed.

#### Costs

To achieve a satisfactory level of profitability in view of the development of revenues described above, Deutsche Telekom will continue to give full attention to its costs.

Over time, Deutsche Telekom plans to reduce its current debt level from its year-end 1998 level of about 50% of its total balance sheet to a level of about 40%. In 1999, scheduled debt repayments total  $\in$ 5.7 billion (including liabilities to banks). Over the course of the next several years, up to  $\in$ 7.7 billion of bonds at high interest rates originally issued in the early 1990s will be maturing annually. As a result, the terms of debt refinancing will have an important influence on interest expenses. The new level of interest rates will depend principally upon future market conditions, Deutsche Telekom's rating as a debtor and its future prospects. Overall, Deutsche Telekom expects to be able to reduce interest payments in 1999 and later years.

Deutsche Telekom has one of the most modern telecommunication networks in the world. Hence, capital expenditures should continue to decline, and depreciation on tangible assets should also continue on a downward path. Deutsche Telekom expects that depreciation and amortization for 1999

will be lower than in 1998, principally as a result of decreased capital expenditures and a lengthening of the useful lives of certain assets. In addition, Deutsche Telekom expects depreciation and amortization to be reduced by  $\in 0.7$  billion as the amortization of VAT capitalized before January 1, 1996 is completed at the end of 1999.

As to personnel costs, Deutsche Telekom expects costs to continue to decline due to further reductions in the number of employees. Deutsche Telekom believes that the reserves established in 1994, 1995 and 1996 in connection with workforce reductions will be sufficient to cover the completion of its workforce reduction program through the end of the year 2000. However, additional workforce reduction initiatives may result in the establishment of additional reserves or expenses thereafter. In addition to cost savings expected to result from workforce reductions, starting in the year 2000, the current system of contributions to civil servants pensions will change, which in turn is expected to contribute to a further decrease in personnel costs. For further information on personnel costs, see "—Results of Operations—Total Operating Costs and Expenses—Personnel Costs".

Particular attention is being given to other operating expenses. Each individual line item is being examined for cost-saving potential. Deutsche Telekom expects that significant savings can be realized over time.

Goods and services purchased will continue to increase in 1999 and coming years. These increases are driven in part by the transformation of Deutsche Telekom from a pure provider of transport services to a systems provider which entails an increase in goods and services purchased, such as from information services providers and software companies. The increase will also reflect Deutsche Telekom's increased costs for termination on the networks of other carriers. The rate of increase in this item is, however, expected to be lower than the overall rate of revenue increase.

In the area of investments, Deutsche Telekom aims to reach the break even point beginning in 1999. Losses from Global One, which are expected to decline, should be offset by income related to other investments, which is expected to increase. The current Asian investments have been almost completely written off and may present opportunity. In this area, worldwide economic developments, particular risks associated with the countries in which Deutsche Telekom has investments and future developments at Global One are the key factors that will determine performance.

For 1999, Deutsche Telekom again expects overall reductions in the losses from its loss-making activities. Further measures to improve performance in the end-user equipment and value-added services segments are planned. If these measures succeed, Deutsche Telekom expects that these businesses could show positive results by the year 2000. As a result, the only business area expected to continue to record losses in 2000 is broadband cable and broadcasting. An increase in cable access rates in conjunction with additional cost-cutting measures reduced Deutsche Telekom's losses from broadband cable in 1998. The core of the cable business has been transferred to a separate subsidiary, and Deutsche Telekom is exploring the possibility of selling interests in this business to third party investors to exploit more fully the potential of its cable network.

# SELECTED HISTORICAL FINANCIAL AND STATISTICAL DATA

You should read the selected financial data shown below in conjunction with the annual financial statements and the interim financial statements of Deutsche Telekom, including the notes to those financial statements. The selected financial data at December 31, 1998, December 31, 1997, December 31, 1996, December 31, 1995, and December 31, 1994, and for each of the years in the five-year period ended December 31, 1998, have been derived from, and are qualified by reference to, the consolidated financial statements for those years upon which C&L Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft and C&L TREUARBEIT DEUTSCHE REVISION Aktiengesellschaft Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, independent public accountants, have reported.

When Deutsche Bundespost TELEKOM (the predecessor of Deutsche Telekom AG) converted into a private law stock corporation, with effect from January 1, 1995, Deutsche Telekom changed some of its accounting policies. For purposes of the selected financial data shown below, Deutsche Telekom has applied these accounting principles with retroactive effect beginning January 1, 1993.

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 37 to the audited consolidated financial statements. In addition, the revaluation of certain property, plant and equipment represents a departure from U.S. GAAP that is not quantified in the reconciliation to U.S. GAAP or reflected in the U.S. GAAP amounts incorporated by reference in this prospectus because, prior to January 1, 1993, Deutsche Telekom's predecessor did not maintain sufficiently detailed historical cost records.

	Year ended December 31.						
	<u>1998(1)(4)</u> <u>1998(2)(3)(4)</u> <u>1997(2)(3)</u> <u>1996(2)(3)</u> <u>1995(2)</u> <u>1994(2</u>						
	\$	€	€	€	€	€	
			(in billio	ns)			
<b>Consolidated Income Statement Data:</b> Amounts in accordance with German GAAP							
Net revenue	38.0	35.2	34.5	32.3	33.8(6)	32.6	
Changes in inventories and other own	1.1	1.0	1.6	1.7	1.7	1.9	
capitalized costs Other operating income	2.3	2.1	1.0	2.0 (7)	1.1	1.9	
Goods and services purchased	(6.8)	(6.3)	(6.2)	(5.2)	(4.9)	(4.7)	
Personnel costs	(9.9)	(9.2)	(9.4)	(9.6)	(9.4)	(9.3)	
Depreciation and amortization(8)	(9.7) (5.9)	(9.0) (5.4)	(9.5) (5.2)	(9.0) (4.9)	(7.9) (4.9)	(7.5) (4.2)	
Other operating expenses							
Total operating expenses	(32.3) (3.6)	(29.9) (3.3)	(30.3) (4.0)	(28.7) (3.9)	(27.1) (4.2)	(25.7) (4.1)	
Results from ordinary business							
activities	5.5	5.1	3.7	3.4	5.3	5.7	
Extraordinary income (losses) Special charge relating to other Post	—	_	_	(1.3)	(0.7)	(0.2)	
entities Taxes; levy to the Federal Republic of	—	—	_	—	—	(1.2)	
Germany(9)	(2.9)	(2.7)	(1.9)	(1.1)	(1.9)	(2.5)	
Income after taxes	2.6	2.4	1.8	1.0	2.7	1.8	
					_		
(Income) losses applicable to minority							
shareholders	(0.2)	(0.2)	(0.1)	(0.1)			
Net income	2.4	2.2	1.7	0.9	2.7	1.8	
Amounts in accordance with U.S. GAAP							
Net income	2.4	2.2	1.3	1.3	2.9	4.1	

	At December 31,						
	1998(1)	1998(2)(3)	1997(2)(3)	1996(2)(3)	1995(2)	1994(2)(5)	
	\$	€	€	€	€	€	
			(in bil	lions)			
Consolidated Cash Flow Data:							
Net cash provided by operating activities	14.6	13.5	11.6	11.4	12.1	12.3	
Net cash used for investing activities Net cash provided by (used for) financing	(8.1)	(7.5)	(5.4)	(13.0)	(6.8)	(14.8)	
activities	(7.4)	(6.8)	(7.0)	3.5	(7.8)	5.7	
Net increase (decrease) in cash equivalents	(0.9)	(0.8)	(0.8)	(1.9)	(2.5)	3.2	
Capital expenditures	5.2	4.8	6.8	8.6	7.5	9.9	
Consolidated Balance Sheet Data: Amounts in accordance with German GAAP Noncurrent assets	71.9	66.5	70.1	73.8	71.2	71.2	
Current assets, prepaid expenses, deferred charges	13.8	12.8	13.2	15.3	10.7	14.7	
Total Assets	85.7	79.3	83.2	89.1	81.9	85.9	
Shareholders' equity	27.1	25.1	24.6	23.8	12.7	9.9	
Accruals	9.0	8.3	7.7	7.6	6.6	5.8	
Debt	43.1	39.9	44.9	51.1	56.4	64.1	
Other liabilities and deferred income	6.5	6.0	6.0	6.6	6.2	6.1	
Total Shareholders' Equity and Liabilities	85.7	79.3	83.2	89.1	81.9	85.9	
Amounts in accordance with U.S. GAAP							
Balance sheet total	88.1	81.5	84.9	91.4	84.3	88.0	
Total long-term liabilities	42.9 29.1	39.7 26.9	45.3 26.1	51.3 25.9	56.5 15.1	62.9 12.3	

(1) Translated into U.S. Dollars at the Noon Buying Rate on March 31, 1999 of €0.9252 to \$1.00.

(2) Amounts have been restated from Deutsche Marks in Euros using the official fixed conversion rate established on January 1, 1999, which was €1.00 = DM 1.95583.

(3) Includes changes in the composition of the group (in particular MATÁV).

(4) Net revenues and total operating costs for 1998 have been adjusted to reflect the method of reporting used by Deutsche Telekom for 1999. As of January 1, 1999, amounts billed for other network operators are no longer shown under net revenue and goods and services purchased.

(5) Figures adjusted retroactively to the accounting principles applied to Deutsche Telekom AG since January 1, 1995.

(6) Including pro-forma value-added tax. Adjusted for VAT, revenue would have been €30.5 billion.

(7) Including one-time value-added tax refund amounting to €338 million.

(8) Including, for periods after 1995, depreciation of value-added tax capitalized prior to January 1, 1996.

(9) In 1995, the levy to the Federal Republic was paid for the last time, with Deutsche Telekom being exempt almost fully from tax. Since January 1, 1996, Deutsche Telekom has been subject to normal corporate taxation.

	Year ended December 31,					
	1998	1997	1996	1995	1994	
Ratios						
Employees—balance sheet date (thousands)(1)	179	191	201	213	229	
Employees—average for the year (thousands)(2)	186	197	208	220	231	
Dividend per share/ADS (€)	0.61	0.61	0.31	0.31		
Earnings per share/ADS in accordance with HGB (€)(3)	0.82	0.62	0.43	1.33	0.91	
Earnings per share/ADS in accordance with U.S. GAAP (€)(3)	0.81	0.46	0.62	1.40	2.00	
Revenue per employee (thousands of €)	185.1	169.2	150.3	153.9	141.1	
Equity ratio (%)(4)	29.5%	27.5%	25.8%	14.7%	11.5%	

(1) Full-time employees, without trainees/students interns and changes in the composition of the group (in particular MATÁV).

(2) Average number of employees for the year without trainees/student interns and without changes in the composition of the group (in particular MATÁV).

(3) Based on dividing net income by the weighted average number of ordinary shares outstanding. The share/ADS ratio is 1:1. In 1996, after giving effect to the 10:1 stock split and the issuance of shares from retained earnings on July 1, 1996. Pro forma for 1994.

(4) Without amounts proposed for dividend payment, which are treated as short-term debt.

	Year ended December 31,					
	1998	1997	1996	1995	1994	
Statistical Data:						
Average number (in millions, unless otherwise indicated)						
Standard telephone access lines	37.0	38.1	39.1	38.7	37.3	
ISDN channels(1)	8.7	6.2	3.9	2.2	1.3	
Total number of access lines	45.7	44.3	43.0	40.9	38.6	
Public telephones	0.2	0.2	0.2	0.2	0.2	
Mobile telephone subscribers	4.6	3.2	2.4	1.8	1.4	
Paging subscribers	0.8	1.0	0.9	0.7	0.5	
Cable subscribers(2)	17.5	17.0	16.3	15.2	14.1	
T-Online subscribers	2.3	1.7	1.2	0.8	0.6	
Domestic calls (billions)	52.7	52.7	50.7	52.3(3)	51.0	
Outgoing international traffic (millions of minutes)(4)	4,711	4,813	4,761	5,238	4,942	
Incoming international traffic (millions of minutes)(4)	6,036	5,618(3)	4,890(3)	4,215	3,984	
Digital mobile subscribers (at period end, in thousands)	5,474	3,276	2,156	1,482	887	
Access lines in service per employee	246	225	207	186	167	

(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 1998, 4.8 million households were connected directly to Deutsche Telekom.

(3) Restated.

(4) Estimated.

# 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 37 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  $\in$ 1.00 = DM 1.95583. For consistency of presentation, Deutsche Telekom has also 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, other than amounts in respect of 1999 or beyond, will not be comparable to the amounts reported by other companies reporting in Euros that were restated from currencies other than the Deutsche Mark.

#### Overview

#### 1998 Performance

In the first year of the full liberalization of the German telecommunications market, Deutsche Telekom experienced growth in consolidated revenue and net income, with consolidated revenue growing in 1998 by approximately 3.4% to  $\in$ 35.7 billion and consolidated net income growing by 32.8% to  $\in$ 2.2 billion. Revenue of  $\in$ 0.5 billion was attributable to the billing of competitors' revenues, an activity Deutsche Telekom engaged in for the first time in 1998. Excluding this amount, consolidated revenue would have grown by approximately 1.9%. Deutsche Telekom confronted intense competition in its telephone network communications business area, in particular 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 4.2% in this business area, despite strong growth in ISDN channels and increased local calls, calls to mobile networks and other services. However, revenue growth in the areas of data communications and systems solutions and licensed service providers and carriers almost fully offset the development in telephone network communications. In addition, the positive development in revenue from mobile network communications and international activities as well as an increasing revenue contribution by T-Online contributed to growth in consolidated revenue.

Deutsche Telekom's cost control efforts affected 1998 results positively. Personnel expense declined, as Deutsche Telekom's workforce reduction program stayed on track to meet the target announced by Deutsche Telekom in 1996. Net interest expense decreased as Deutsche Telekom further reduced net indebtedness. Reduced capital expenditure had a favorable effect on depreciation and amortization, which declined following the 1997 completion of the accelerated digitization of the network. Costs related to interconnection with other telecommunication carrier networks and the billing of competitors' revenues, however, led to higher expenses for goods and services purchased. In addition, other operating expenses increased. Considerably reduced write-downs and losses related to Deutsche Telekom's investments in Asia compared with 1997 levels influenced 1998 results favorably. In addition, for certain of its business areas Deutsche Telekom successfully implemented measures to improve financial performance.

# Factors Affecting Deutsche Telekom's Business

Deutsche Telekom's core business areas have been influenced in recent years by a number of different developments. 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 data transmission and exploding Internet usage 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 year-end 1998, there were more than 160 business enterprises that had been granted more than 300 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. Deutsche Telekom does not expect this status to change for some time to come. As a result, unlike the tariffs of its competitors, many of Deutsche Telekom's tariffs are subject to regulation. During 1998, 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. The final disposition of pending regulatory decisions and future regulatory action will directly influence Deutsche Telekom's financial and competitive performance. For a discussion of pending regulatory decisions and related litigation, see "Regulation" and "Business—Legal Proceedings".

The competition and regulatory environment in which Deutsche Telekom operates affects its various business areas in different ways, as discussed below.

*Telephone Network Communications.* Deutsche Telekom's most significant service—domestic and international public fixed network voice telephony—was opened to full competition on January 1, 1998.

Deutsche Telekom's competitors now include international telecommunications carriers and startup domestic companies, as well as industrial conglomerates, utility companies and municipal enterprises that have diversified into telecommunications. Competition intensified as 1998 progressed, with Deutsche Telekom's competitors placing 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 were able to compete with Deutsche Telekom with minimal or modest investments in network infrastructure and with prices that often undercut Deutsche Telekom's pricing.

In selecting an alternate carrier, customers may choose between call-by-call selection and preselection. Call-by-call selection requires only that a customer dial a numerical prefix when making a call in order to select an alternate carrier. Preselection involves the submission of an application to the carrier of choice and the payment of a fee to switch from Deutsche Telekom to the other carrier. The preselection fee approved by the Regulatory Authority was lower than that requested by Deutsche Telekom. Many competing carriers settle the payment of the preselection fee to Deutsche Telekom so that no special outlay on the part of the customer is required. Deutsche Telekom observed that, in 1998, business customers took advantage of both preselection and call-by-call, whereas call-by-call was particularly attractive to private customers. From a carrier's perspective, preselection binds the customer to the carrier on a default selection basis and so tends to foster customer loyalty, whereas call-by-call selection does not.

The introduction of full competition in the telephone market has inevitably resulted in loss of market share for Deutsche Telekom. Deutsche Telekom estimates that its market share in the telephone network communications area, as measured by traffic directed through its network, declined in 1998 by an average of approximately 4.8% over the full year. The decline was most pronounced in the second half of the year and came almost entirely from long distance and international calls. For the final quarter of 1998, in comparison with the final quarter of the year before, Deutsche Telekom estimates that the decline in its average market share in the telephone network communications area stood at approximately 9.4%. Deutsche Telekom believes that competition has to some extent stimulated overall demand for fixed network voice telephony services. Despite significant market share gains by competitors-particularly in the area of regional, national and international long distance calls on the fixed network-traffic volume on Deutsche Telekom's fixed network increased in 1998. This increase is a result of a number of factors, including Deutsche Telekom's success in promoting ISDN as a value-added alternative to traditional analog lines and the increasing popularity of Deutsche Telekom's Internet platform, T-Online. Deutsche Telekom does not yet face significant competition in the market for local calls. However, Deutsche Telekom is required to provide competitors with unbundled access to its subscriber access lines, and the Regulatory Authority has set a monthly tariff for this unbundled access substantially lower than Deutsche Telekom had sought in its tariff application. Accordingly, competition is expected to increase in this market.

After implementing a far-reaching tariff reform in January 1996 in preparation for the introduction of competition in its core telephony business, Deutsche Telekom further adjusted its tariffs in 1998 to stimulate demand, address competitive challenges and meet regulatory requirements imposed by a price cap regime for the tariffs of Deutsche Telekom's public fixed-line voice telephony services. Effective March 1, 1998, Deutsche Telekom introduced lower tariffs for national and international long distance calls, rebates for calls longer than ten minutes and certain optional tariff programs. In line with its strategy to offer its customers tailored telecommunications services at competitive prices and in response to fierce competition in the domestic long-distance market, Deutsche Telekom further reduced tariffs in 1999. For further information regarding the initial effects of these tariff cuts on revenues, see "First Quarter Results and Outlook".

**Mobile Communications.** The area of mobile communications exhibited strong growth in 1998 as this market segment expanded to include new customer groups. At the end of 1998, there were over 13.8 million mobile phone users registered in Germany, representing an increase of 68% over the prior year. Despite the extremely strong growth, Deutsche Telekom believes that the market holds considerable potential for further expansion, particularly considering the comparatively low penetration rate of 17% at the end of 1998. With four mobile network operators (up from three in 1997) and several resellers of mobile telecommunications services competing in the German market, customers benefited in 1998 from intense competition, resulting tariff reductions and special offers. T-Mobil, Deutsche Telekom's mobile telecommunications subsidiary, introduced a variety of innovations and tariff reductions in 1998, including the introduction of local tariffs. Deutsche Telekom believes that these tariff measures not only boosted the number of its digital mobile telephone subscribers in the second half of 1998 but also positively influenced growth in the mobile communications market. As one of the two leading mobile network operators in Germany, Deutsche Telekom expects to be well positioned to benefit from market developments.

Data Communications and Systems Solutions. The market for data communications and systems solutions, which has been open to competition for several years now, has been growing strongly, particularly in terms of data traffic volume. Recent developments show a trend towards services and applications based on frame relay, ATM and IP technologies, as well as integrated network services and systems solutions. Deutsche Telekom has increased its sales in this area with

its broad portfolio of high quality services and tailored systems solutions which it offers through its technologically advanced network.

**T-Online.** The innovative market of multimedia services, especially online and Internet services, experienced strong growth in 1998. T-Online, Deutsche Telekom's online and Internet service, had 2.7 million customers at year end 1998, making it the largest online service provider in both Germany and Europe. The number of T-Online customers increased by 40.6% during 1998. The challenge for T-Online, which has the vast majority of its customers in Germany, will be to expand 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. Deutsche Telekom is exploring opportunities for introducing the T-Online service in neighboring countries such as Austria and Switzerland.

Licensed Service Providers and Carriers. The full liberalization of the market for voice telephony on January 1, 1998 brought a new revenue stream of about  $\in 0.5$  billion to this business area from interconnection services provided to other fixed network carriers. The tariffs for interconnection were set by the Regulatory Authority at prices lower than those sought by Deutsche Telekom in its tariff applications. Both Deutsche Telekom and its competitors have challenged certain aspects of these decisions. In March 1999, the Regulatory Authority announced that Deutsche Telekom will be entitled, beginning immediately, to charge higher interconnection tariffs to competitors that generate so-called "atypical" traffic patterns, such as local calls routed through a distant switch. Deutsche Telekom immediately applied for approval of these tariffs. In May 1999, the Regulatory Authority denied Deutsche Telekom's application.

**Broadband Cable and Broadcasting.** Revenues in the area of broadband cable and broadcasting were positively affected by an increase in Deutsche Telekom's cable tariffs in November 1997 which was approved by the Regulatory Authority in 1998. Deutsche Telekom has transferred the core of its cable operations, along with certain non-current assets, to a wholly-owned subsidiary and is exploring opportunities for the sale of equity interests in these cable operations to third-party investors, as described below under the heading "Business—Broadband Cable/Broadcasting."

# 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 industries of telecommunications, information technology, media, entertainment and security are increasingly converging. Technological advances have increased the capacity and bandwidth of fixed network transmission 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. As a universal telecommunications service provider, Deutsche Telekom seeks to participate actively in the business opportunities arising from the convergence of information and communications technologies, taking advantage of its advanced networks to offer sophisticated services based on ISDN or ADSL technologies, IP technology or telematics solutions.

### Costs

Deutsche Telekom is on track to meet the cost reduction goals that it set for itself at the time of its 1996 initial public offering and continues to take measures to reduce costs over the medium term, with a special emphasis on personnel and interest expense.

**Personnel.** Deutsche Telekom determined several years ago that its staffing levels exceeded those 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 consolidated group) by the end of the year 2000 and introduced a workforce reduction program. As of December 31, 1998, on a net basis, Deutsche Telekom has reduced its staffing levels by 50,300 full-time equivalent employees since 1995 with a reduction of 11,900 in 1998 alone. The workforce reduction program relies on natural attrition, early retirement and other measures to achieve its objective. Largely as a result of the workforce reduction, personnel costs declined by 2.2% in 1998. For further information on the development of Deutsche Telekom's personnel costs, see "—Results of Operations—Total Operating Costs and Expenses—Personnel Costs".

**Interest Expense.** To reduce interest expense and strengthen its capital structure, Deutsche Telekom reduced its outstanding net indebtedness by 38% from €64 billion at January 1, 1995 to €40 billion at December 31, 1998 through scheduled and early repayment of indebtedness. For further information relating to interest expense, see "—Results of Operations—Financial Income (Expense), Net—Net Interest Expense".

**Depreciation.** Depreciation increased in 1996 and 1997 and decreased in 1998. The earlier increases were primarily a consequence of the accelerated digitization of Deutsche Telekom's exchanges in the Federal States comprising the former West Germany, which resulted in a corresponding shortening of the useful lives of Deutsche Telekom's analog exchanges and transmission equipment. They also resulted from substantial investments made in Deutsche Telekom's network, particularly in connection with the build-out in eastern Germany. The accelerated digitization and the build-out of the network in eastern Germany were completed in December 1997. As expected, in 1998 depreciation was reduced as a result of the full depreciation of its analog exchanges and transmission equipment. For further information relating to depreciation, see "—Results of Operations —Total Operating Costs and Expenses—Depreciation and Amortization".

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

In recent years, Deutsche Telekom recorded losses related to its investments in Global One, which was negatively affected by start-up costs, and the Asian ventures, which were exposed to the turbulence in the Asian markets. In an effort to improve profitability, Global One is refocusing its efforts and placing further emphasis on multinational customers. It is continuing to review its operations, to implement expense controls, and to focus on improving the network infrastructure. Implementing these measures may result in one-time charges. For further information regarding Global One, see "Business —International Investments and Joint Ventures—Global One." Deutsche Telekom actively reduced its risk exposure to its Asian ventures by writing-down the investments and recording necessary risk provisions. See "—Results of Operation—Financial Income (Expense), Net—Income (Loss) from Financial Activities".

## Real Estate

Due to the consolidation of various operations, the digitization of its network completed in late 1997 and ongoing staff 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 accounting policies— Accounting and valuation". As of December 31, 1998, Deutsche Telekom's real estate had an aggregate book value of €17.7 billion. In 1997, Deutsche Telekom established a €205 million reserve in respect of potential losses associated with the disposition of properties no longer used in its businesses. A further charge of approximately €100 million was recognized in 1998 as a result of Deutsche Telekom's ongoing evaluation of property used in its business. In view of Deutsche Telekom's 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 Telecom'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 "Business— Properties."

#### Income before Taxes by Business Segment

For the 1998 financial year, Deutsche Telekom for the first time is reporting business segment revenue, operating income and net asset information on the basis of newly applicable segment reporting requirements (SFAS No. 131). Under the new requirements, Deutsche Telekom determines its business segments on the basis of reporting categories used in Deutsche Telekom's management information systems. Previously, Deutsche Telekom treated its business as a single segment. Because of changes in Deutsche Telekom's internal organization and the reengineering of its management information and accounting systems, the presentation for comparison purposes of segment information other than external revenues under the new accounting standard for periods prior to January 1, 1998 is not currently practicable. Year-on-year comparative information will become available next year, and the comparison of interim segment information presented on the basis of the new standard will become possible after the first quarter of 1999.

In 1998, Deutsche Telekom's telephone network communications business segment reported income before taxes of €4.8 billion. The results in telephone network communications were influenced by the growth in the overall telecommunications market in Germany and Deutsche Telekom's relinquishment of its monopoly position in public fixed network voice telephony services. Deutsche Telekom's reduction of its tariffs for regional and long distance negatively affected operating margins in telephone network communications and, combined with the loss of market share, resulted in a decrease in profitability in 1998.

Income before taxes from mobile communications amounted to €672 million in 1998. Strong growth in the mobile subscriber base positively affected performance in this segment. This effect, however, was partially offset by declining mobile tariffs and increased customer acquisition costs.

Broadband cable and broadcasting ran losses before taxes of €325 million in 1998. The tariff increase implemented toward the end of 1997, however, contributed substantially to an improvement of financial performance in this segment.

Losses before taxes from terminal equipment totaled €114 million in 1998, which represented an improvement in performance. In 1998, Deutsche Telekom streamlined its portfolio of terminal equipment and took other measures to enhance efficiency. This segment is characterized by heavy competition and low margins, but Deutsche Telekom continues to believe that terminal equipment supply helps bind it to its customers.

Special value-added services generated losses of €181 million during 1998. Deutsche Telekom believes that realignments of prices for some of its special value-added services and adjustments to

the number and location of its public telephones contributed to a reduction of losses in this segment in 1998.

Deutsche Telekom's international activities segment, which for segment reporting purposes consists principally of the Hungarian telecommunications provider MATÁV, generated income before taxes of €267 million in 1998.

Other segments include licensed service providers and carriers, data communications and systems solutions, and multimedia, and reflect results from non-consolidated associated companies. In 1998, other segments generated losses before taxes of  $\in$ 40 million. These losses reflect the losses attributable to associated companies as well as related administration and interest costs totaling a negative result of  $\in$ 0.6 billion, which were offset by income before taxes for licensed service providers and carriers, data communications and systems solutions. Multimedia, which consists primarily of T-Online, is a rapidly growing business area and as such is not yet a significant contributor to income before taxes. The losses attributable to associated companies reflected the negative results related to Global One and Deutsche Telekom's Asian ventures, which were adversely affected by economic conditions in Southeast Asia. However, compared to 1997, losses from these investments declined substantially. See "—Results of Operations—Financial Income (Expense), Net—Income (Loss) from Financial Activities".

Despite the negative effects of price decreases, the telephone network communications segment continued in 1998 to provide Deutsche Telekom's most attractive profit margins, followed by the international activities and mobile telecommunications segments. The broadband cable, terminal equipment and special value-added services areas showed negative margins in 1998. Data communications and multimedia within the other segments category had narrow profit margins because of competitive pressures in the data communications market and because of continued investment in both areas.

# **Results of Operations**

#### Net Revenues

Deutsche Telekom's consolidated net revenues are derived principally from telephone network communications services, which are basically domestic and international public fixed-line 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. Broadband cable and broadcasting, the supply and sale of terminal equipment, special 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) are included under the heading "International activities" 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:

	Year ended December 31,					
	199	8	199	7	199	6
		(Euro in	millions, ex	cept percei	ntages)	
Telephone network communications	20,533	57.5%	21,441	62.1%	20,430	63.4%
Licensed service providers and						
carriers(1)	1,611	4.5%	1,229	3.6%	1,130	3.5%
Data communications and systems						
solutions(1)	2,507	7.0%	2,326	6.7%	2,139	6.6%
Mobile communications	3,061	8.6%	2,573	7.5%	2,138	6.6%
Broadband cable / broadcasting	1,804	5.1%	1,597	4.6%	1,533	4.8%
Terminal equipment	1,502	4.2%	1,646	4.8%	1,737	5.4%
Special value-added services	2,051	5.7%	2,001	5.7%	1,702	5.3%
Other services (including						
multimedia)(1)(2)	1,254	3.5%	521	1.5%	456	1.4%
International activities	1,396	3.9%	1,205	3.5%	985	3.0%
Net revenues	35,719	100.0%	34,539	100.0%	32,250	100.0%

(1) Operative segments which are included in "Other segments" in the segment disclosure according to SFAS No. 131.

(2) In 1998, includes  $\in 0.5$  billion in revenue attributable to the billing of competitors' revenue.

The presentation of Deutsche Telekom's revenues in this prospectus generally reflects the organization of Deutsche Telekom's business in 1998. Deutsche Telekom's business was rearranged in some respects during 1998. Data presented for previous years has been recompiled to reflect the new business structure solely to facilitate year-to-year comparisons. As a consequence of the 1998 rearrangement and a 1997 reorganization, line item information presented herein may not be directly comparable with that reported in previous years.

Certain other business areas were reconfigured with effect from January 1, 1999. As a consequence, the presentation of line item information concerning 1999 revenues in interim and annual reports differs in some respects from the presentation herein.

Major changes in the presentation of revenues for 1998 are described below:

- The "telephone network communications" line item no longer includes revenues from call charges for operator services such as directory inquiries services and from toll free and similar value-added services. These revenues are now presented as revenues from "Special value-added services". They amounted in 1997 to approximately €0.8 billion.
- Revenues from "mobile communications" now also contain revenues from mobile handsets distributed by the sales department of Deutsche Telekom (€31 million in 1997) which had been included in "Other services" in the previous year presentation.

**Telephone Network Communications.** Revenues from services for domestic telephone network communications consist of revenues from initial connection fees and monthly rental charges and from call charges for local, regional and domestic long-distance calls. Call charges for international long-distance calls are included in the revenues of telephone network communications. Revenues from telephone network communications are likely to be affected by many influences and trends, as described more fully above under the heading "—Overview—Factors Affecting Deutsche Telekom's Business".

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

	Year ended December 31,			Year e Decem	ended ber 31,	
	1998	1997	1996	1998/1997	1997/1996	
	(Eu	ıro in millic	ons)	(% change)		
Initial connection fees, monthly rental charges and						
other network services	6,138	6,011	5,784	2.1	3.9	
Domestic traffic charges	12,312	12,921	12,167	(4.7)	6.2	
Domestic telephone communications	18,450	18,932	17,951	(2.6)	5.5	
International telephone communications	2,083	2,509	2,479	(16.9)	1.2	
Total telephone network communications	20,533	21,441	20,430	(4.2)	4.9	

*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:

		ear ende cember	
	1998	1997	1996
	ı)	millions	)
Average number of access channels	45.7	44.3	43.0

Revenues from initial connection fees, monthly rental charges and other network services grew by 2.1% in 1998 and 3.9% in 1997 largely as a result of the increase in the number of access lines. The substitution of ISDN basic access lines for standard access lines contributed to higher average monthly rental charges.

**Domestic Traffic 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 "—Overview—Factors Affecting Deutsche Telekom's Business".

On March 1, 1998, Deutsche Telekom introduced a major change in its traffic charges, the first since its January 1, 1996, tariff reform. Several tariffs for national long distance calls, especially those with a transmission distance longer than 200 kilometers, were reduced. Charges for calls to Deutsche Telekom's mobile telephone network decreased and a discount tariff for regional and long distance calls with a duration longer than 10 minutes was introduced. See "Business—Services—Telephone Network Communications". As a result of the tariff reduction in 1998, average charges per minute for total domestic traffic declined by approximately 10%. In 1997, tariffs for telephone traffic were not changed.

Revenues from call charges decreased by 4.7% in 1998 principally as the result of tariff cuts and competition, which intensified in the course of the year. The competition was largely price-driven with an emphasis on long distance calls, where minutes decreased by 7.1%. Business customers began to avail themselves of the services of multiple carriers for different services either by preselection or call-by-call. Private customers were particularly attracted by call-by-call offers. However, the increased traffic and corresponding revenues from calls to mobile networks and from connections to T-Online partially offset the decline in revenues from domestic charges.

In 1997, revenues from call charges increased by 6.2% primarily due to higher traffic as a result of an increased number of access lines and a greater number of calls to mobile networks. This growth was principally attributable to private customer usage. The increase in revenues also reflects comparison with 1996 revenues that were weakened by a dip in usage in early 1996.

**International Telephone Communications.** Revenues from call charges for international longdistance 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 "—Overview—Factors Affecting Deutsche Telekom's Business".

On March 1, 1998, Deutsche Telekom introduced new tariffs for its international telephone services. In particular, tariffs for long distance calls to the United States and Canada were significantly reduced. See "Business—Services—Telephone Network Communications". In 1997, Deutsche Telekom did not modify the tariffs for its international telephone services.

The 16.9% decrease in revenues from international telephone services resulted in part from a 2.1% drop in the volume of Deutsche Telekom's international outgoing traffic. The drop was attributable primarily to the full liberalization of the German voice telephony market at the beginning of 1998, with new competitors entering the market and pursuing customer traffic principally on the basis of price. Competition intensified as the year progressed. In addition, revenues were significantly influenced by the tariff cuts introduced in March 1998. In 1997, revenues from international telephone services grew due to a small increase in traffic volume.

Licensed Service Providers and Carriers. 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 the years 1996 and 1997, 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:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
	(Euro in millions)			(% change)	
Domestic interconnection services	829	310	261	167.6	18.8
International interconnection services	782	919	869	(14.9)	5.7
Licensed service providers and carriers	1,611	1,229	1,130	31.2	8.7

The liberalization of the market for voice telephony as of January 1, 1998 brought considerable revenue growth in the area of domestic interconnection services as fixed network competitors

connected with Deutsche Telekom's network for the first time. The continued expansion of the mobile communications market also contributed to the revenue growth in this area which, however, was not sufficient to offset a corresponding decline in telephone network communications revenues. In 1997, the increased revenues from domestic interconnection services reflected the expansion of the mobile communications market.

Revenues from international interconnection services decreased in 1998 despite the strong growth in traffic. Declining international settlement rates more than offset the positive effects from traffic growth. Exchange rate movements had no significant effect on revenues from international interconnection services in that year.

In 1997, revenues from international interconnection services increased largely as the result of a 14.9% growth in traffic. The impact of declining international settlement rates was more than offset by the strengthening of the U.S. Dollar and the British Pound against the Deutsche Mark.

**Data Communications and Systems Solutions.** The main sources of revenue for data communications and systems solutions 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 systems solutions customized to meet specific customer needs. The following table gives a breakdown of these revenues:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
	(Euro in millions)			(% change)	
Data communications	1,047	1,065	1,120	(1.7)	(4.9)
Systems solutions	1,460	1,261	1,019	15.8	23.8
Data communications and systems solutions	2,507	2,326	2,139	7.8	8.7

In 1998, total data communications and systems solutions revenues increased, principally reflecting increased sales of systems solutions, which have benefited from a trend toward higher valueadded total communications solutions. In 1997, systems solutions revenues surpassed data communications revenues for the first time.

The most significant contributors to data communications revenues are leased lines for data communications and Datex-P, Deutsche Telekom's packet switched data transmission service based on the X.25 protocol. Overall data communications revenues declined in 1998 and 1997 as a result of the migration of customers toward systems solutions, but also due to increased competition and the resulting tariff pressure. Tariff pressure was particularly strong in the case of digital leased lines, although an increase in the number of digital leased lines, which have increasingly substituted for analog leased lines, somewhat mitigated this effect. Other data communications services, such as frame relay and ATM-based services, have also partially offset the decline in traditional data communications revenues.

Systems solutions revenues increased in 1997 and 1998 as Deutsche Telekom actively marketed these services to capitalize on the trend toward higher value communications solutions.

**Mobile Communications.** Revenues from mobile communications are generated from installation charges, monthly rental 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 telephone services from T-Mobil at a discount, resell those services and bill subscribers directly at rates they set independently. During 1998, traffic charges (including those paid by independent service providers) accounted for approximately 69% and monthly

rental charges and initial connection fees together accounted for approximately 31% of net revenues generated by T-D1. 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 below under the heading "Regulation—Special Requirements Applicable to Market-Dominant Providers". The following table shows information concerning the development of revenues from mobile communications:

	Yea	ar ended December	Year ended D	ecember 31,	
	1998	1997	1996	1998/1997	1997/1996
	(Euro in millions)			(% ch	ange)
Revenues:					
T-D1	2,391	1,832	1,362	30.4	34.6
T-C-Tel	239	328	437	(27.1)	(24.9)
Other mobile communications services					
and products	431	413	339	4.4	21.7
Mobile Communications	3,061	2,573	2,138	18.9	20.4

Revenues from mobile communications increased in 1998 and 1997, primarily as a result of continued growth in the number of T-D1 subscribers. The average number of T-D1 subscribers rose by 58.4% in 1998 and 50.8% in 1997, 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 due to the decline in tariffs and in traffic per subscriber, as lower-volume users accounted for an increasing percentage of T-D1's subscriber base. Revenues were adversely affected by expected declines in the number of subscribers to Deutsche Telekom's analog T-C-Tel mobile service and in revenue per T-C-Tel subscriber. Revenues from sales of mobile handsets which are included in other mobile communications services and products increased by 8.6% in 1998 to €320 million and by 35.6% in 1997 to €295 million due to the strong subscriber growth in the mobile communications market. Mobile handsets are in part subsidized in order to create attractive package offers for new customer groups.

**Broadband Cable and Broadcasting.** Revenues from broadband cable are principally generated 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 broadband cable and broadcasting:

		Year ended Year ended December 31, December 31,			
	1998	1997	1996	1998/1997	1997/1996
	(Euro in n	nillions, except	as noted)	(% ch	ange)
Broadband cable	1,353	1,178	1,112	14.9	6.0
Broadcasting	451	419	421	7.6	(0.6)
Broadband cable and broadcasting	1,804	1,597	1,533	13.0	4.2
Average number of cable television subscribers (in millions of households)(1)	17.5	17.0	16.3	2.9	4.5

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

In 1998, revenues from broadband cable grew by 14.9% principally due to the effect of an increase in the monthly subscription fees for cable television which came into effect in November 1997. Revenues also increased as a result of 2.9% growth in the average number of cable television subscribers.

In 1997, revenues from broadband cable increased due to 4.5% growth in the average number of cable television subscribers.

**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:

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Ei	uro in millio	(% change)			
Sales revenues	523	497	508	5.4	(2.3)	
Leasing revenues	979	1,149	1,229	(14.8)	(6.4)	
Terminal equipment	1,502	1,646	1,737	(8.7)	(5.2)	

Revenues from terminal equipment fell considerably in 1998 as a result of an effort to streamline the product portfolio in this area in order to improve profitability. The decline in leasing revenues, particularly from the lease of analog terminal equipment, continued in 1998. This effect was partly offset by an increase in sales revenues, particularly from PBX and terminal equipment for ISDN lines. See "Business—Supply and Service of Terminal Equipment".

In 1997, revenues from terminal equipment were negatively affected by a decline in leasing revenues, particularly from analog terminal equipment. Revenues were also affected by a decrease in sales revenues from analog terminal equipment and PBX, reflecting the general decline in terminal equipment prices, which more than offset increased sales of ISDN terminal equipment.

**Special Value-Added Services.** Revenues from special 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 special value-added services for the periods indicated.

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Euro in millions)			(% ch	ange)	
Special value-added services	2,051	2,001	1,702	2.5	17.5	

In 1998, revenues from special 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 special value-added services benefited from price adjustments for operator services that became effective in November 1997. These effects were partly offset by declining revenues from public telephones, which resulted from the lower average number of public telephones and declining traffic from these telephones in 1998. The average number of public telephones declined from 163,000 in 1997 to 157,000 in 1998. See "Business—Services—Special Value-Added Services".

Revenues from special value-added services were affected in 1997 by a slight decrease in the number of public telephones as well as by the competition public telephones face from the growing use of mobile telephones. This decline in revenues from public telephones was more than offset by increased revenues from telephone directory publishing and a greater number of calls to toll-free lines and information services lines.

**Other Services.** Revenues from other services include revenues generated from multimedia communications, especially T-Online. They also include revenues from the billing of competitors' revenues and from support services and ancillary activities performed by Deutsche Telekom.

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Euro in millions)			(% ch	ange)	
Other services	1,254	521	456	140.8	14.0	

In 1998, Deutsche Telekom engaged in the billing of competitors' revenues for the first time, which resulted in revenues of €0.5 billion in that year. Revenues collected by Deutsche Telekom for competitors according to the Telecommunications Customer Protection Ordinance *(Telekommunikations-Kundenschutzverordnung)* are paid through to them, which results in a corresponding amount in Deutsche Telekom's services purchased less a fee to compensate Deutsche Telekom for its services. Except for this fee, the net effect of billing competitors' revenues is zero. See "Regulation—Customer Protection Ordinance".

In addition, revenues from other services grew as the result of increases in revenues from T-Online of 36.7% to  $\in$  305 million in 1998 and 90.7% to  $\in$  223 million in 1997. In both years, revenues from T-Online services principally benefited from growth in the number of subscribers. Telephony traffic revenues generated by T-Online are not included in multimedia communications, but in revenues from telephone network communications services.

International Activities. Revenues from international activities comprise the revenues of Deutsche Telekom's foreign subsidiaries. These principally reflect the revenues of MATÁV. They contributed  $\in$ 1.4 billion in 1998 and  $\in$ 1.2 billion in 1997 to Deutsche Telekom's consolidated revenues. The increase in MATÁV's revenues in both years was attributable to the increase in the number of access lines and mobile subscribers in Hungary.

## Increase (Decrease) 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 increase or decrease in inventories and other own capitalized costs:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
	(Euro in millions)		(% change)		
Increase (decrease) in inventories and					
other own capitalized costs	990	1,514	1,766	(34.5)	(14.3)

The levels of increase in inventories and other own capitalized costs in the years 1996 through 1998 reflect the levels of construction activity associated with the digitization of the network. The digitization of the network was completed in 1997. This resulted in a lower level of increase in inventories and other own capitalized costs beginning in that year.

### 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:

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Euro in millions)			(% change)		
Other operating income	2,069	1,915	1,997	8.0	(4.1)	

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 €655 million in 1998, €664 million in 1997 and €775 million in 1996. Deutsche Telekom expects to reclaim a total of approximately €2.7 billion over 10 years (from 1996 forward). In addition, Deutsche Telekom recognized a one-time VAT refund of €339 million in 1996. This refund was recovered based on a 1996 agreement with the German tax authorities concerning the recovery of VAT paid on assets purchased prior to January 1, 1996 and placed into service in 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 such assets has been recognized as operating income at the time those assets were placed into service.

Other operating income increased by 8.0% in 1998. This increase resulted principally from a onetime disposition of noncurrent assets of  $\in$ 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  $\in$ 87 million as well as an increase in reversals of valuation adjustments of accounts receivable and doubtful accounts.

In 1997, other operating income decreased by 4.1%, primarily due to the effect of the one-time VAT refund in 1996. Other operating income in 1997 also reflected a one-time adjustment of Deutsche Telekom's accruals in connection with VAP (*Versorgungsanstalt der Deutschen Bundespost*) pension commitments of €184 million, cost reimbursements of €93 million, reversals of valuation adjustments of accounts receivable and doubtful accounts of €42 million and a one-time gain of €37 million, which resulted from the sale of a 3.9% interest in MATÁV (through its interest in MagyarCom).

## **Total Operating Costs and Expenses**

Deutsche Telekom's two core operating cost components are personnel costs and depreciation and amortization. The following table sets forth Deutsche Telekom's total operating costs and expenses broken down by major components:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
	(E	(Euro in millions)			ange)
Goods and services purchased	6,798	6,205	5,228	9.5	18.7
Personnel costs	9,170	9,377	9,601	(2.2)	(2.3)
Depreciation and amortization	9,037	9,509	9,026	(5.0)	5.3
Other operating expenses	5,385	5,195	4,834	3.7	7.5
Total operating costs and expenses	30,390	30,286	28,689	0.3	5.6

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

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(E	uro in millio	ns)	(% change)		
Goods purchased	1,571	1,508	1,185	4.1	27.3	
Domestic network access charges(1) International network access charges	1,489 1,409	801 1,621	521 1,396	85.8 (13.1)	53.9 16.1	
Total network access charges Other services purchased	<b>2,898</b> 2,329	<b>2,422</b> 2,275	<b>1,917</b> 2,126	<b>19.6</b> 2.4	<b>26.4</b> 7.0	
Total	6,798	6,205	5,228	9.5	18.7	

(1) In 1998, includes €0.5 billion in costs related to the billing of competitors' revenue.

The increase in expenses for goods purchased of  $\in$ 63 million in 1998 resulted primarily from the increased purchases of mobile handsets for resale. In 1997, Deutsche Telekom's spending for goods purchased grew by  $\in$ 323 million. This increase was largely attributable to increased sales of mobile handsets, due in part to marketing activities at MATÁV's mobile communications subsidiaries in Hungary and, to a lesser extent, increased sales of other telecommunications equipment.

Domestic network access charges rose in 1998 by €0.7 billion due to charges for interconnection services from other domestic fixed network carriers which relate to the growing number of calls initiated by Deutsche Telekom's fixed network customers and terminated in the networks of other German carriers, particularly mobile telecommunications operators. In addition, costs of €0.5 billion related to the billing of other operators' revenues were incurred for the first time in 1998. In 1997, domestic network access charges rose largely as a result of increasing numbers of calls placed from Deutsche Telekom's fixed network to customers of other German mobile communications operators.

International network access charges declined in 1998 by €212 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. In 1997, international network access charges increased by €225 million, mainly due to increased international outgoing traffic, higher costs for roaming services and exchange rate effects, which were partially offset by continued declines in international settlement rates.

Other services purchased consist of telecommunications hardware and software, buildings and other maintenance expenses; energy and utility costs; and costs for provided information services. In 1998, the expenses for other services purchased increased by  $\in$ 54 million primarily because of increased costs for provided information services. In addition, maintenance expenses increased as a result of activities related to the Year 2000 and Euro projects. In 1997, the expenses for other services purchased exceeded 1996 levels by  $\in$ 149 million due to increased costs for provided information services and energy and utility costs, which offset decreases in maintenance costs.

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

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Euro in millions)			(% change)		
Wages and salaries	6,477	6,624	6,754	(2.2)	(1.9)	
Other personnel costs(1)	2,693	2,753	2,847	(2.2)	(3.3)	
Total personnel costs	9,170	9,377	9,601	(2.2)	(2.3)	

(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.

Deutsche Telekom has been taking measures to reduce its personnel costs, primarily through the implementation of a workforce reduction program. See "—Overview—Costs—Personnel". In 1998, Deutsche Telekom made further progress with its workforce reduction program. For 1998, it employed an average number of 185,740 full-time employees (adjusted for consolidation changes and excluding trainees), which was 11,203 full-time employees less than in the prior year. The program is proceeding ahead of schedule.

As a result of the reduction in the average number of full-time employees, personnel costs of Deutsche Telekom decreased by 2.2% or  $\in$ 207 million in 1998. However, personnel costs per employee increased by 3.9%. This increase resulted in part from a 1.5% 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 costs per employee was also attributable to age-related salary increases and the review of salaries in some areas to bring them in line with market conditions. Furthermore, the annual contributions to a special fund for civil servant pensions, which currently are not linked to the number of employees covered, also resulted in a nominal increase in the personnel costs per employee. For 1999, salaries under collective bargaining agreements for non-civil servant employees generally will increase by 3.1%.

In 1997, Deutsche Telekom reduced its workforce at a faster pace than expected. Deutsche Telekom employed an average number of 196,943 full-time employees (adjusted for consolidation changes and excluding trainees), or 10,826 full-time employees less than the prior year. Savings resulting from these reductions were offset in part by a 1.3% increase in salaries and wages, which came into effect on January 1, 1997 for non-civil servants and on March 1, 1997 for civil servants. Other personnel costs were affected by the higher wages and salaries level and a 1.1% increase in the average rates of social security contributions effective January 1, 1997.

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% of Deutsche Telekom's workforce, has been and is expected to be less than  $\in$ 61 million per year until the year 2000. At October 1, 1998, wages and salaries for employees in eastern Germany increased to 96% of the level paid in western Germany.

Under Postreform II, Deutsche Telekom is required to make annual contributions to a special pension fund established to fund pension obligations to its civil servant employees. Until 1999, Deutsche Telekom is obligated to make annual contributions of €1.5 billion. Beginning in the year 2000, Deutsche Telekom will be obligated to make annual contributions equal to 33% of the salaries of its then-current civil servant employees (including the imputed salaries of civil servant employees on unpaid leave). See "Management and Employees—Employees—Civil Servants". Based on anticipated reductions in the size of its workforce, Deutsche Telekom expects that its pension costs will decline significantly beginning in the year 2000. Deutsche Telekom's pension obligations for its non-civil servant employees were adjusted downwards at the beginning of 1997. See "—Other Operating Income".

Deutsche Telekom has 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. See "—Overview—Costs—Personnel". The then expected total cost of these staff reduction measures ( $\in$ 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, 1997:

		ended 1ber 31,
	1998	1997
	(Euro in millions)	
Accrual/payable, beginning of year	774	1,069
Payments made	(304)	(295)
Accrual/payable, end of year	470	774

Deutsche Telekom's provisions for restructuring costs cover employees that leave under voluntary separation agreements. Through December 31, 1998, a total of 50,300 full-time equivalent positions (excluding positions at MATÁV) were eliminated, of which 35,600 were eliminated pursuant to voluntary separation agreements. 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 therein:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
	(E	(Euro in millions)			ange)
Depreciation and amortization	9,037	9,509	9,026	(5.0)	5.3

In 1998, depreciation and amortization decreased by €472 million, principally as a result of the completion at the end of 1997 of the shortening of the useful lives 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.

The €483 million increase in depreciation and amortization in 1997 was primarily attributable to the continued investment in digital switching and transmission technology. Deutsche Telekom's digitization program was completed in December 1997 with the replacement of the last analog switching equipment with digital equipment. The remaining increase in 1997 was primarily attributable to increased investment in computer hardware and software.

**Other Operating Expenses.** Total other operating expenses increased by 3.7% in 1998. Deutsche Telekom reduced provisions significantly in comparison with 1997. However, this reduction was offset by increases in marketing expenses, commissions and legal and consulting fees, losses on disposition of noncurrent assets and losses on accounts receivable and provision for doubtful accounts.

The following table sets forth other operating expenses broken down by major components and the percentage changes therein:

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Ei	uro in millio	ns)	(% ch	ange)	
Marketing expenses, commissions, legal and						
consulting fees	1,520	1,297	1,450	17.2	(10.5)	
Losses on disposition of noncurrent assets	727	614	545	18.2	12.8	
Losses on accounts receivable and provision						
for doubtful accounts	656	407	363	61.2	12.3	
Provisions	298	531	217	(43.9)	144.2	
Other expense items	2,184	2,346	2,259	(6.9)	3.8	
Postal charges, postal and banking services				. ,		
and administrative expenses	596	633	562	(5.8)	12.5	
Employee-related costs (including travel and						
temporary employment expenses)	562	554	521	1.5	6.2	
Rental and leasing expenses	553	536	593	3.2	(9.6)	
Other miscellaneous expenses	473	623	583	(24.1)	6.9	
Total other operating expenses	5,385	5,195	4,834	3.7	7.5	

Marketing expenses, commissions, and legal and consulting fees increased in 1998 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. In 1997, marketing expenses, commissions, and legal and consulting fees decreased by €153 million. This decrease was mainly attributable to the termination of a consumer incentive program to promote ISDN access lines during the year and reduced publicity costs following the successful public offering in 1996. Also, consulting fees and sales commissions relating to ISDN access lines, telephone card sales and terminal equipment declined.

Because of Deutsche Telekom's large noncurrent asset base and the rapidly changing technological environment in which it operates, parts of its fixed asset base become obsolete each year in the ordinary course of business. The levels of losses on disposition of noncurrent assets also relate to the digitization of the network completed in 1997 and related replacements of analog switches and public communications equipment. In 1998, the scrapping of outside plant resulted in €310 million of losses on disposition of noncurrent assets. Losses on the disposition of noncurrent assets increased by 12.8% in 1997, primarily as a result of the disposal of co-axial and copper wiring relating to analog switching equipment.

Losses on accounts receivable and provisions for doubtful accounts increased in 1998 as a result of a valuation adjustments of receivables, which had been outstanding for some time. In addition, Deutsche Telekom wrote off receivables related to its Asian investments. In 1997, losses on accounts receivable and provisions for doubtful accounts primarily reflected an increase in Deutsche Telekom's receivables to  $\in$ 4.2 billion at December 31, 1997.

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 declined by 6.9% in 1998 as a result of decreases in expenses for postal and banking services and other miscellaneous expenses. The increase in other expense items in 1997 resulted principally from employee-related expenses and reflected an increased charge related to civil servant health care benefits. During 1996, Deutsche Telekom agreed with Deutsche Post and Deutsche Postbank upon the apportionment of the costs of the civil servant health care program. On the basis of this apportionment, Deutsche Telekom's obligations for 1996 were fully provided for, and no expense was recognized during that year. In addition, in 1997, a decrease in leasing expenses of €84 million, resulting from decisions to purchase rather than lease hardware, was partially offset by increases in rental expenses.

Miscellaneous expenses shown in the table above include foreign currency transaction losses of €105 million for 1998, €114 million for 1997 and €93 million for 1996. See note 7 to the consolidated financial statements. These losses were partially offset by foreign currency transaction gains of €37 million for 1998, €12 million for 1997 and €35 million for 1996. 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 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. For further information on foreign currency translation, see "Summary of Significant Accounting Principels—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:

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Euro in millions)			(% change)		
Net interest expense	(2,962)	(3,256)	(3,717)	(9.0)	(12.4)	
Results related to companies accounted for						
under the equity method	(382)	(778)	(284)	(50.8)	173.4	
Other investments	56	31	57	78.7	(45.0)	
Income (loss) from financial activities	(326)	(747)	(227)	(56.2)	227.9	
Financial income (expense), net	(3,288)	(4,003)	(3,944)	(17.8)	1.5	

**Net Interest Expense.** To reduce interest expense and strengthen its capital structure, Deutsche Telekom reduced its debt by  $\in$ 5 billion to  $\in$ 40 billion in 1998 and by  $\in$ 6 billion to  $\in$ 45 billion in 1997. See "—Overview—Costs—Interest Expense". In large part due to this debt reduction, net interest expense decreased by  $\in$ 294 million in 1998 and  $\in$ 461 million in 1997. The effective weighted average interest rate applicable to Deutsche Telekom's debt was 7.6% in both 1998 and 1997 and 7.4% in 1996. The rate increase in 1997 resulted from the repayment of debt during that year that had carried a lower rate of interest. Increased interest revenue also contributed significantly to the decline in net interest expense in 1998 and 1997.

**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 from other investments consists primarily of dividends received from Deutsche Telekom's investments in various satellite service providers and from Sprint.

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 €396 million in 1998. In 1998, Deutsche Telekom's share of loss related to Atlas (through which Deutsche Telekom and France Telecom hold their interest in Global One) amounted to €221 million, €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 €23 million. In 1998, Deutsche Telekom's Asian ventures, particularly TRI, Asiacom and Satelindo, generated loss from financial activities of €171 million, a decrease of €295 million from the 1997 level. The 1998 decrease in loss from loss from financial activities includes principally a €44 million decrease in nonscheduled goodwill amortization, a €37 million decline in risk provisions (net) for the write-down of equity book values and a €145 million decrease in proportionate losses. By reducing the equity book value of these ventures to €143 million by year end 1998, Deutsche Telekom has reduced its risk exposure with respect to its Asian ventures significantly. Outside of Asia, risk provisions of €30 million which Deutsche Telekom made in previous years with respect to its investments in DETECON Deutsche Telepost Consulting GmbH ("Detecon") and EUCOM 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 €71 million.

In 1997, 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, increased by €494 million. This increase resulted primarily from losses and amortization related to Deutsche Telekom's investments in Atlas and in Southeast Asia. Proportionate losses and goodwill amortization related to Atlas totaled €198 million, an increase of €53 million from 1996, largely as a result of startup costs. Non-scheduled goodwill amortization on the Atlas investment was €8 million. Loss from financial activities relating to investments with exposure to the Southeast Asian economies, including TRI, Asiacom and Satelindo, amounted to €466 million, an increase of €373 million from 1996, due to the turbulent market situation and weakened domestic currencies. Of this amount, €154 million was attributable to non-scheduled goodwill amortization and €41 million reflects risk provisions for the write-down of equity book values in 1997. Losses, including risk provisions, and goodwill amortization arising from Deutsche Telekom's investments in Detecon and EUCOM, which are accounted for using the equity method, were €42 million in 1997, an increase of €35 million in comparison with the previous year.

# Taxes

The following table presents information concerning income taxes and other taxes:

	[	Year ended December 31	
	1998	1997	1996
	(Euro in millions)		
Income taxes	2,477	1,512	708
Other taxes	177	332	424
Taxes	2,654	1,844	1,132

Income taxes increased in 1998 and 1997 primarily as a result of increased 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 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 50% in 1998 and 45% in 1997. The statutory income tax rate for Deutsche Telekom

was approximately 57% in 1998 and 1997, including corporate income taxes (assuming that earnings are not distributed), trade income taxes (using a national average rate) and the solidarity surcharge on corporate income tax (*Solidaritätszuschlag*). The differences between the statutory rate and the effective rate relate primarily to the lower income tax rate of 30% on the proposed dividend of  $\in$ 1.7 billion in both 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.

In 1996, Deutsche Telekom created a provision of €119 million with respect to its billing of 1996 revenues from incoming international services as VAT-exempt in accordance with the Melbourne Agreement. This treatment was inconsistent with the German tax authorities' interpretation of the VAT Act, as it existed in 1996. Effective January 1, 1997, the VAT Act was amended to make it consistent with the Melbourne Agreement, which means that incoming international services are no longer taxable in Germany. In view of the change of the German tax authorities' position, Deutsche Telekom is seeking a formal exemption from VAT on its 1996 incoming international services.

# Liquidity and Capital Resources

The following table provides information concerning Deutsche Telekom's cash flows:

	Year ended December 31,		
	1998	1997	1996
	(Eu	ro in millio	ns)
Net cash provided by operating activities	13,491	11,576	11,381
Net cash used for investing activities	(7,511)	(5,404)	(12,948)
Net cash used for (provided by) financing activities	(6,797)	(7,035)	3,514
Effect of exchange rate changes on cash and cash			
equivalents	6	(3)	
Net increase (decrease) in cash and cash			
equivalents(1)	(811)	(866)	1,947
Cash and cash equivalents at the beginning of the period	2,875	3,741	1,794
Cash and cash equivalents at the end of the period	2,064	2,875	3,741

(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 increased by €1.9 billion in 1998 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 provided by operating activities increased by  $\in$ 195 million in 1997 although net increased by  $\in$ 0.8 billion. The increase in net cash provided by operating activities was less than the

increase in net income. Revenue growth and increased non-cash charges resulted in higher net cash from operating activities. However, these effects were partially offset by the  $\in$ 304 million decrease in accounts payable, the decrease in accruals for pensions of  $\in$ 258 million and the comparative effect of the absence in 1997 of the  $\in$ 710 million expense accrued for personnel restructuring measures in 1996. In addition, cash provided by operating activities was negatively influenced by increased payments for income taxes and positively influenced by a decline in interest payments.

**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.

	Year ended December 31,			
	1998	1997	1996	
	(Euro in millions)			
Net change in short-term investments	(701)	1,729	(2,064)	
Other cash used for investing activities	(6,810)	(7,133)	(10,884)	
Net cash used for investing activities	(7,511)	(5,404)	(12,948)	

In 1998, Deutsche Telekom dedicated a net amount of  $\in 0.7$  billion of cash to short-term investments. In 1997, a net amount of  $\in 1.7$  billion in short-term investments was redeemed, which resulted in a net cash inflow.

Other net cash used for investing activities declined in 1998 and 1997. The primary use of such cash was for capital expenditures, which totaled  $\in$ 4.8 billion in 1998,  $\in$ 6.8 billion in 1997 and  $\in$ 8.6 billion in 1996. Until 1997, these expenditures reflected in part the digitization of the fixed network, which was completed in 1997. In addition, in 1998, 1997 and 1996, cash was used for investments in noncurrent securities and investments in joint ventures and third party telecommunications companies. See "—Capital Expenditures and Investments".

**Net Cash Used For (Provided By) Financing Activities.** Deutsche Telekom reduced its outstanding debt by net  $\in$ 5.0 billion in 1998, of which  $\in$ 210 million was repaid before maturity, and by net  $\in$ 6.1 billion in 1997, of which  $\in$ 26 million was repaid before maturity. See "—Overview—Costs—Interest Expense".

In addition, Deutsche Telekom paid dividends in an aggregate amount of  $\in$ 1.8 billion in 1998 relating to the financial year 1997, which for the first time included dividends paid by MATÁV,  $\in$ 0.8 billion in 1997 relating to the financial year 1996 and  $\in$ 0.6 billion in 1996 relating to the financial year 1995.

The change in net cash used for (provided by) financing activities also reflects the effect of the cash inflow of  $\in 1$  billion from a bond issue floated in May 1998 and, in 1996, the cash inflow of the gross proceeds of  $\in 10.3$  billion from the global offering in November 1996.

Deutsche Telekom's ability to pay dividends is determined by reference to the unconsolidated financial statements of Deutsche Telekom AG, which are prepared in accordance with German GAAP. In 1997, Deutsche Telekom AG realized gains from intra-group transactions in the amount of  $\in 0.5$  billion. In 1998, Deutsche Telekom contributed  $\in 0.5$  billion to a subsidiary and capitalized the amount to its investment account, which supported earnings at the parent company available for distribution as dividends. The net effect of these transactions on a consolidated basis was zero in both years.

# Capital Resources

At December 31, 1998, Deutsche Telekom had committed short-term facilities of  $\in$ 5.1 billion, of which  $\in$ 0.5 billion were of an unlimited duration. The interest rates for these facilities range from 5.5% to 6.0% or are set at the daily interbank rate plus 0.25%. The remainder will expire in 1999. Deutsche

Telekom expects to renew these facilities annually. At December 31, 1998, these credit lines had been drawn upon only to a limited extent. At December 31, 1998, medium term notes in the amount of  $\in$ 435 million were outstanding, of which  $\in$ 77 million expire in 1999 and the remaining  $\in$ 358 million have maturities ranging from 2000 to 2009. At December 31, 1998, these medium term notes bore interest at an average effective rate of 6.38%.

As of December 31, 1998, €38 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 does not anticipate any significant longterm debt increases during 1999, although it may incur new debt to refinance existing debt. Refinancing conditions will depend principally upon future market conditions, Deutsche Telekom's rating as a debtor and its future prospects. See "—Disclosures About Market Risk" for a presentation of scheduled maturities of Deutsche Telekom's indebtedness as of December 31, 1998. Deutsche Telekom intends to strengthen its capital structure by reducing its indebtedness to €33 billion or less by the year 2000 (excluding consolidation changes). Debt of €5.7 billion (including liabilities to banks) will reach maturity in 1999. For the longer term, Deutsche Telekom is seeking to establish a capital structure consisting of approximately 40% equity, 40% debt and 20% 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 is therefore considering 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:

		Year ende		Year ended December 31,		
	1998 1997 1996		1998/1997	1997/1996		
	(Eu	ro in milli	ons)	(% change)		
Capital expenditures	4,791	6,791	8,633	(29.4)	(21.3)	
Investments	2,733	801	2,669	241.1 <sup>′</sup>	(70.0)	
Proceeds from sale of non-current assets	(715)	(329)	(335)	117.6	(2.0)	
Other	<u> </u>	(130)	(83)	(100.4)	56.8	
Net cash used for investing activities <sup>(1)</sup>	6,810	7,133	10,884	(4.5)	(34.5)	

(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.

	Year ended December 31,			Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996	
	(Eu	ro in milli	ons)	% change		
Fixed networks	2,348	4,268	4,502	(45.0)	(5.2)	
Mobile networks	289	203	113	42.6	80.5	
Buildings	223	313	468	(28.8)	(33.2)	
Other capital expenditures	1,931	2,007	3,550	(3.8)	(43.5)	
Total capital expenditures	4,791	6,791	8,633	(29.4)	(21.3)	

In 1998, capital expenditures fell by 29.4%. The decrease 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% of total capital expenditures in 1998, with investments in telephone network and switching equipment both accounting for approximately 12%. Investments in assets other than technical assets and equipment accounted for the remaining 45%. These included capital expenditures for intangible assets of  $\in 0.5$  billion, which related primarily to software.

Capital expenditures fell by 21.3% in 1997. Capital expenditures on technical assets and equipment accounted for approximately 66% of total capital expenditures in 1997, with investments in telephone network equipment accounting for approximately 16% and switching equipment accounting for approximately 21% of that total. Investments in assets other than technical assets and equipment accounted for the remaining 34%. The decrease in capital expenditures resulted primarily from the final stages and completion of the digitization of Deutsche Telekom's network.

In 1999, Deutsche Telekom plans to dedicate  $\in$ 1.5 billion to its telephone network with a special focus on innovative projects such as T-DSL technology, virtual private networks and the convergence of fixed and mobile networks. Within this amount, capital expenditures of  $\in$ 350 million relate to the expansion of the number of ISDN channels in the national network,  $\in$ 600 million is to be devoted to improvements of the international and national network and  $\in$ 400 million is planned for the expansion of its Internet platform. Additionally, Deutsche Telekom plans to dedicate capital expenditures of  $\in$ 750 million to the expansion of the capacity of its mobile network.

#### Investments

Investments in subsidiaries, associated companies and related companies made in 1998 totaled  $\in$ 2.7 billion. Deutsche Telekom AG invested an additional  $\in$ 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  $\in$ 1.9 billion was invested in associated and related companies. Among the equity investments made was the purchase of a 2% interest in France Telecom for  $\in$ 1.2 billion. Other companies in which Deutsche Telekom made equity investments were Atlas/Global One with  $\in$ 240 million, the joint venture Wind S.p.A, Italy, with  $\in$ 77 million, the Israeli company VocalTec Communications Ltd. with  $\in$ 46 million, the satellite company SES Société Européenne des Satellites S.A. with  $\in$ 174 million and Sprint with  $\in$ 38 million. Deutsche Telekom also granted a loan of  $\in$ 111 million to Detecon, an associated company.

In 1997, Deutsche Telekom AG invested €447 million in fixed-income securities (annuity funds), mixed funds and equity investment funds, with a view toward increasing income from medium- and long-term reserves. Deutsche Telekom also made a loan of €82 million to Detecon, an associated company, and invested an additional €84 million in the Philippine companies, Islacom and Asiacom, in accordance with the original purchase contract. In addition, €62 million was directed to various smaller investments.

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.

# 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 achieving the compatibility of its processes, support systems and applications with the Euro on a timely and efficient basis. The Euro project group coordinates and controls the complex 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 the year 2000. Until then, Deutsche Telekom will issue its invoices denominated in DM with convenience translations into Euro and will provide optional billing in Euro to its large business customers on request. Beginning with the first quarter of 1999, Deutsche Telekom will report its financial results in Euro. 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 €143 million for its Euro compliance program. Modification costs for system adjustments will be expensed as incurred. In 1998, Deutsche Telekom spent approximately €20 million on its Euro compliance activities. For 1999, Deutsche Telekom expects costs of approximately €50 million. Deutsche Telekom expects to complete its Euro project at the end of 2002.

#### Year 2000

The Year 2000 issue arises from the use of two-digit instead of four-digit year fields in computer systems. If computer systems cannot distinguish between the year 1900 and the year 2000, system failures or other computer errors could result. These errors could affect both Deutsche Telekom and its customers, vendors and resellers. All of Deutsche Telekom's corporate divisions are confronted with the Year 2000 issue. Potentially affected systems and activities include network elements, the IT systems supporting business operations, products (terminal equipment) and services, customer billing systems and facilities management. Due to Deutsche Telekom's size, its nationwide presence and large number of customers individual systems can become very complex.

Deutsche Telekom has established a central project management team for the coordinated preparation, implementation and control of the Group's "Year 2000 Compliance" program. To reduce complexity, this team's activities have been divided into five sub-project areas: Administrative Systems; Network Elements; Technical Equipment for Buildings; Sales & Service; Product Marketing.

In general, Deutsche Telekom will take the following steps in each of the sub-project areas: *Inventory*: registration of all systems, products and services that could reasonably be expected to be affected by the Year 2000 issue; *Analysis:* examination of systems, products and services for potential instances of the Year 2000 issue; *Conversion:* adjustment or replacement of affected components and subsystems in order to achieve Year 2000 compliance; *Test.* testing to ensure that conversion of individual systems, products and services has been successful; *Overall integration test:* formation and testing of logical clusters on the basis of Deutsche Telekom's business processes to ensure that converted systems and services are interacting smoothly with each other and with existing components.

Overall integration testing is not applicable for terminal equipment. Specific solutions have been prepared for activities that do not directly involve individual products or services. Deutsche Telekom carries out tests of administrative systems in its own development centers and checks network elements, switching systems and terminal devices in its own test centers. Deutsche Telekom has prepared a schedule for conversion of systems, covering all relevant milestones, from inventory to overall integration testing, which is planned to be largely completed for all important projects by June 30, 1999.

On the basis of mutual agreements Deutsche Telekom is cooperating closely with its suppliers, substantially all of whom are using the same procedure (analysis, conversion, test) to convert their products and services. Deutsche Telekom's central purchasing department took up the Year 2000 issue in 1997 and has requested declarations concerning Year 2000 compliance from all significant suppliers for their products. Revised contracts used since 1997 generally contain specific representations, warranties and covenants from suppliers concerning the Year 2000 issue. In addition to obtaining these declarations and agreements, Deutsche Telekom is retesting the relevant products.

**Program Status.** Work on individual programs is proceeding according to schedule. Deutsche Telekom is using a highly sophisticated Internet-based inventory management system to keep a current inventory of all systems. With the help of this system, Deutsche Telekom has identified and registered approximately 1,600 network elements, all of its approximately 530 very large, operationally critical administrative systems and 600 smaller information technology applications.

Deutsche Telekom has largely completed the conversion of administrative systems, and the related individual testing, as well as some overall integration tests. Deutsche Telekom has completely converted and tested its customer billing software and expects that conversion of the related operating systems will be completed by mid-1999. In addition, Deutsche Telekom will store communications records for critical days longer than usual, to ensure that billing procedures can be repeated if any problems arise.

Deutsche Telekom also has completed systems conversion for the network elements, as well as individual tests for the main systems that are exposed to the Year 2000 issue. Some overall integration tests have been carried out for combined systems. In its ISO-9000-certified development and data processing centers, Deutsche Telekom is now able to widely duplicate the productive system environment. As a result, Deutsche Telekom is able to test converted systems under realistic conditions. The tests carried out in these centers include end-to-end tests, which Deutsche Telekom conducted with some of its international partners. To ascertain Year 2000 compliance for switched network nodes, Deutsche Telekom has established a three-tier test procedure that includes individual systems tests, combined systems tests and inter-carrier tests. Deutsche Telekom has carried out this type of testing at its Nuremberg test center for various local, long-distance, gateway and international nodes, for an access network, and for operation and maintenance terminals. This testing included "time travel" involving synchronous setting of system clocks to all relevant dates, especially to the turn of the millennium and to the leap day in the year 2000. In particular, testing focused on switched traffic from analog and ISDN lines to all destinations, including network management functions and generation of communications data records.

Deutsche Telekom's memberships in the ITU (International Telecommunication Union) and ETSI (European Telecommunications Standards Institute) enable it to work closely with other telephone network operators on the Year 2000 issue. Deutsche Telekom also participates regularly in international conferences at which experts coordinate Year 2000 related measures. Inter-carrier tests have been conducted within the framework of an ITU study group, in cooperation with the network operators TELIA (Sweden) and Hong Kong Telecom (Cable & Wireless). Deutsche Telekom plans to conduct additional inter-carrier tests with Deutsche Telekom's international partners (Sprint, France Telecom and Global One) in 1999.

Deutsche Telekom plans to complete the overall integration tests, along with the resulting adjustments, by June 30, 1999, but will continue testing after this date, if necessary, including testing with other carriers.

Deutsche Telekom completed the inventory of terminal equipment in November 1998 and completed the related testing in January 1999. Certain measures have been taken in this regard; for example, Deutsche Telekom has published, on its website, a product database of all terminal equipment. Technical adjustments of non-compliant leased devices and systems are being carried out within the framework of existing contractual agreements. In addition, Deutsche Telekom will assume the cost of ensuring Year 2000 compliance of Deutsche Telekom brand terminal equipment that has been sold or leased under a Deutsche Telekom contract since October 1, 1996.

Facilities management within the Deutsche Telekom group is the responsibility of DeTelmmobilien, a wholly owned subsidiary. Deutsche Telekom has completed an inventory of Year 2000 sensitive infrastructure facilities and established a timetable to address these facilities. For the technical equipment in buildings, relevant infrastructure systems—such as access-control systems, elevators, air conditioning and fire protection systems—are being reviewed for Year 2000 compliance. At the same time, Deutsche Telekom has established plans to ensure availability of emergency power systems. DeTeImmobilien also conducts audits of selected power companies to assess the reliability of Deutsche Telekom's power supply. A first audit, of Hamburgische Elektricitätswerke, was successful.

Associated Companies and Subsidiaries. Deutsche Telekom's results of operations and financial condition could be adversely affected by Year 2000 compliance problems at its associated companies and subsidiaries, including MATÁV and Global One. MATÁV established a Year 2000 compliance program and currently expects to complete it successfully and in due time. Deutsche Telekom has been meeting with Global One, France Telecom and Sprint to define common approaches to Year 2000 compliance program and to share information to ensure interconnectivity. Global One has established a Year 2000 compliance program and is performing Year 2000 interconnection tests with its international partners. From subsidiaries not formally included in Deutsche Telekom's Year 2000 program, Deutsche Telekom gathered Year 2000 status reports to monitor Year 2000 compliance risk.

**Costs.** Overall, conversion and testing of systems is expected to generate costs and capital spending of about  $\in$ 150 million. During 1998, Deutsche Telekom incurred expenditures of approximately  $\in$ 55 million for projects connected with Year 2000 conversions. Since the Deutsche Telekom group's Year 2000 program and its Euro project are taking place at the same time, the allocation of expenditures for software conversions and replacement between the two programs is sometimes imprecise. Additional expenditures of about  $\in$ 95 million are expected to be incurred in 1999. About 25% of the expenditures incurred so far have been for capital spending for new systems to replace existing systems. A significant portion of these expenditures results from services carried out by Deutsche Telekom's development and test centers and by DeTeCSM.

If, despite all the measures taken, Year 2000 compliance problems occur, additional costs may result which could exceed the estimated €150 million project expenditures.

*Risk Assessment.* Deutsche Telekom has assessed its business exposure that would result from a failure of the Year 2000 program, as well as those of its affiliates, suppliers and connecting carriers. Such failures could result in the interruption of services, customer billing, operating and other information systems, and the failure of certain date-sensitive equipment, and could lead to legal and regulatory exposure. The majority of Deutsche Telekom's services are operated on its own equipment and systems, and although Deutsche Telekom believes that internal Year 2000 compliance will be achieved by December 31, 1999, the Year 2000 issue could, in the case of a failure, have a material adverse affect on Deutsche Telekom's business, financial condition and results of operations.

**Contingency Plans.** Deutsche Telekom is currently preparing contingency plans in cooperation with its major business partners. The plans cover all operative business processes and tests are being run for the most important processes. Contingency plans are expected to be in place, for all business processes, by September 1, 1999.

Contingency plans already exist to cover power failures of switched network nodes within the telephone network. For example, all locations have batteries that can maintain operations for at least four hours. Mobile emergency power generators, as well as stationary power generators in large network operating centers, are able to provide at least two days of emergency power without being refueled.

To ensure that any disruptions of administrative systems, network elements and technical equipment for buildings can be addressed immediately, special personnel will be on-call and on-duty schedules are being prepared for the critical days. In addition, a control center will be established no later than September 1999 to monitor all Year 2000 related failures and problems and coordinate response measures.

#### German GAAP Compared to U.S. GAAP

Under U.S. GAAP, Deutsche Telekom's net income was  $\in 2.2$  billion in 1998,  $\in 1.3$  billion in 1997 and  $\in 1.3$  billion in 1996, compared to  $\in 2.2$  billion in 1998,  $\in 1.7$  billion in 1997 and  $\in 0.9$  billion in 1996 under German GAAP. Under U.S. GAAP, shareholders' equity was  $\in 26.9$  billion at December 31, 1998 and  $\in 26.1$  billion at December 31, 1997, compared to  $\in 25.1$  billion at December 31, 1998 and  $\in 24.6$  billion at December 31, 1997 under German GAAP. Differences result primarily from the different treatment of personnel restructuring and other accruals, VAT, termination of interest rate swaps, financial instruments, income taxes and, in 1996, share offering costs and the employee share purchase plan. See note 37 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 41 to the consolidated financial statements.

### **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 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. A primary objective is the implementation of the valueat-risk methodology to detect measure and monitor risk exposure. In 1998, Deutsche Telekom implemented KVAR+, a new risk management system from Reuters, which started to operate in 1999. The central treasury function, operating as a service center, also supplies financial services to Group companies appropriate to their requirements and local circumstances. In 1998, treasury systems and operations were prepared for the introduction of the Euro. From January 1999, all external financial transactions are made in Euro. The existing listed debt of Deutsche Telekom has been redenominated in Euro. OTC derivatives were converted to Euro by the end of first quarter 1999. Bank loans and promissory notes will be converted to Euro where practicable.

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 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, 1998.

#### December 31, 1998

### Assets and related derivative instruments subject to interest rate risk

	Maturities							
	1999	2000	2001	2002		Thereafter	TOTAL	FAIR VALUE
ASSETS				(Eu	o in m	illions)		
Other long-term loans Fixed rate Average interest rate (%)	110 6.95	104 6.95	104 6.95	110 6.95	140 6.95	1 6.95	569 6.95	569
Other investments in non-current securities Interest instrument investment portfolio(1)	522		1	1	0.5		524	563
Other investments in marketable securities	522		I	I	0.5		524	203
Fixed rate	552 5.81	66 9.00	239 7.67	204 7.77	65 6.28	233 7.08	1,359 6.83	1,370
Liquid assets								
Fixed rate DM Average interest rate (%)(2)	4,675 3.56	_	_	_	_	_	4,675 3.56	4,675
Fixed rate US\$ Average interest rate (%)(2)	236 5.28				_	—	236 5.28	236
Variable rate DM Average interest rate (%)(2)	175 2.60	_	—	—	_	—	175 2.60	175
DM receiver interest rate swaps Variable to fixed(4) Average pay rate (%)(3) Average receive rate (%)(3)	1,023 3.26 4.34	_	_	_	_	_	1,023 3.26 4.34	19
DM FRAs Buy Average rate (%)	51 3.26	_	_	_	_	_	51 3.26	0
DM FRAs Sell Average rate (%)	920 3.80	_	_	_	_	_	920 3.80	3
Interest future contracts bought         300 contracts with DM 250,000 nominal value         Future price DM	38 56.04	_	_	_	_	_	38 56.04	_
DM payer swaptions sold Variable to fixed(4) Premium received Average pay rate (%)(3) Average receive (strike) rate (%)(3)	205 1 3.56 4.00	_	_	_	_	_	205 1 3.56 4.00	(0)

(1) The interest rate terms for these investments (mainly investment funds and mixed funds) are not available.

(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.

### December 31, 1998

### Liabilities and related derivative instruments subject to interest rate risk

	Maturities							
	1999	2000	2001	2002	2003	Thereafter	TOTAL	
LIABILITIES				(Euro	in milli	ions)		
Bonds and debentures								
Fixed rate	5,364	3,985	5,326	7,872	2,557	10,948	36,052	40,291
Average interest rate (%)(1)	7.30	8.77	7.90	7.83	6.21	7.03	7.57	
Variable rate(4)	8		_	_	39	2	49	48
Average interest rate (%)(1)	17.04				16.92	2.77	17.04	
Liabilities to banks								
Fixed rate	278	222	258	330	724	1,570	3,383	3,383
Average interest rate (%)(1)	7.18	7.23	7.16	7.10	7.32	7.08	7.09	
Variable rate(4)	37	18	145	208	31	10	449	449
Average interest rate (%)(1)	10.53	10.34	9.96	10.80	17.98	18.74	10.53	
DM payer interest rate swaps				150	150	1 500	1 000	(010)
Fixed to variable Average pay rate (%)(2)	_	_	_	153 5.20	153 4.82	1,586 5.62	1,892 5.52	(212)
Average receive rate (%)(2)				5.20 3.26	4.62 3.63	5.62 3.53	5.52 3.51	
DM receiver interest rate swaps				3.20	3.03	3.03	3.01	
Variable to fixed(3)	205	13	1,227	716		562	2,723	138
Average pay rate (%)(2)	3.56	3.63	3.62	3.63	_	3.58	3.61	150
Average receive rate (%)(2)	5.35	6.30	4.50	4.71		5.00	4.73	
DM interest rate caps purchased	0.00	0.00	4.00	4.71		0.00	4.75	
Contract amount	_	_	_	153	_	_	153	2
Premium paid				9			9	
Average strike rate (%)				3.83			3.83	
US\$ payer interest rate swaps								
Fixed to variable(3)	_	_	—	43	43	279	365	(16)
Average pay rate (%)(2)				6.13	5.83	6.15	6.11	
Average receive rate (%)(2)				5.23	5.75	5.35	5.38	
US\$ receiver interest rate swaps								
Variable to fixed(3)		_	_	43	43	279	365	10
Average pay rate (%)(2)				5.23	5.75	5.35	5.38	
Average receive rate (%)(2)				5.90	5.80	5.92	5.90	
Cross currency interest rate swaps			04	40	00		77	0
Fix GRD to variable DM Average pay rate (%)(2)			31	18	28	_	77	9
Average receive rate (%)(2)			3.55 9.70	3.56 9.03	3.54 8.11		3.55 8.96	
			0.10	0.00	0.11		0.00	

(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 HUF.

# Foreign Exchange Rate Risk

Deutsche Telekom conducts its business primarily in Germany and, therefore, its cash flows have been primarily denominated in Deutsche Mark for periods prior to January 1, 1999 and in Euros for subsequent periods. Deutsche Telekom is exposed to foreign exchange risk related to foreign currency denominated liabilities 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. The introduction of the Euro does not significantly affect the foreign exchange exposure of Deutsche Telekom. 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. Deutsche Telekom does not currently hedge into Euros the book value of its non-Euro international participations, although there is some natural diversification of exposure that results from the variety of currencies involved.

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 and planned, but not committed, purchases denominated in foreign currency which are expected to become payable during 1999.

## December 31, 1998

# Derivative instruments subject to foreign exchange risk

	Maturities							
	1999	2000	2001	2002	2003	Thereafter	TOTAL	FAIR VALUE (Euro in
			(DM i	in milli	ons)			Millions)
Foreign currency forward exchange contracts			•					
Buy US\$/ sell DM	441	—	_	—	_	—	441	(11)
Average contractual exchange rate (DM/US\$)	1.75						1.75	
Sell US\$/ buy DM	271	_	—	_	_	—	271	11
Average contractual exchange rate (DM/US\$)	1.80						1.80	
Sell GBP/ buy DM	84	_	—	_	_	—	84	1
Average contractual exchange rate (DM/GBP)	2.79						2.79	
Sell PTE/ buy DM	106	—	—	—	—	—	106	(0)
Average contractual exchange rate (DM/100 PTE)	0.97						0.97	
Cross currency interest rate swaps							. = 0	
Fix GRD to variable DM	_	_	60	35	55	_	150	9
Average pay rate (%)(1)			3.55	3.56	3.54		3.55	
Average receive rate (%)(1)			9.70	9.03	8.11		8.96	

(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, 1998 which are sensitive to changes in equity prices. The securities are carried at cost.

	December 31, 1998 Assets subject to equity price risk		
	Cost	Fair Value	
	(Euro	in millions)	
Other investments in non-current securities			
Equity investment portfolio	538	596	

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 1997

Deutsche Telekom has been progressively reducing its net indebtedness, which is primarily of a fixed interest nature. The reduction of the fixed rate bonds by approximately 7% to  $\in$ 36,052 million 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 1997. Deutsche Telekom faces an increased equity price risk related to its investment in mixed and equity funds which increased by  $\in$ 302 million in 1998 to  $\in$ 538 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 34 to the consolidated financial statements.

## BUSINESS

## Introduction

Deutsche Telekom is the principal provider of telecommunications services in Germany. It is also Europe's largest, and the world's third largest, telecommunications service provider, measured in terms of consolidated net revenues. Deutsche Telekom's consolidated net revenues in 1998 totaled €35.7 billion.

Deutsche Telekom is the largest provider of fixed-line voice telephony services to the public in Germany, providing over 46 million access lines to subscribers at December 31, 1998. Deutsche Telekom is the world's leading ISDN operator, with 10.1 million ISDN channels in service at December 31, 1998, which was more than the total number of ISDN channels then in service in the United States. Deutsche Telekom's network is one of the most technologically advanced networks in the world, with 100% 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 the leading data communications provider and one of the leading systems solutions providers 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 is Germany's second largest mobile communications provider, with approximately 6.0 million digital mobile telephone subscribers as of March 31, 1999. Deutsche Telekom estimates that its mobile telephony subsidiary, T-Mobil, had a 40.5% share of the German digital mobile telecommunications market as of March 31, 1999, and a 41.8% share of the overall German mobile telecommunications market. The overall German mobile telephony market has grown rapidly in recent years, expanding to an estimated 15.3 million subscribers at March 31, 1999 from an estimated 9.3 million subscribers the year before. Nevertheless, Germany has a relatively low mobile telephony penetration rate, as only 17% of the population had subscribed to a mobile telephony service at December 31, 1998. By way of comparison, the mobile telephony penetration rate was approximately 58% in Finland, 51% in Sweden, 35% in Italy, 22% in the United Kingdom and 19% 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 operates Germany's largest broadband cable network, transmitting television and radio programming, directly or indirectly, to 17.7 million households at March 31, 1999. In anticipation of the sale of interests in the business to third party investors, Deutsche Telekom has placed the core of its broadband cable business into a separate subsidiary. Deutsche Telekom expects, however, to retain an equity interest in this business to preserve its access to cable television customers for the purpose of marketing its multimedia services. In radio and television signal broadcasting, Deutsche Telekom is also among the European leaders.

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, covering products from telephones and fax machines to private automatic branch exchanges 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 center, public telephone and telephone directory services.

Deutsche Telekom owns Europe's largest Internet online service provider and access gateway, T-Online, with 3.0 million subscribers at March 31, 1999. The number of T-Online subscribers increased by 40.6% in 1998, and by 41.7% in 1997. T-Online plans to build on its strong position in Germany and to expand into markets outside Germany, initially into neighboring Austria and Switzerland but then also into other European markets. 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.

Internationally, Deutsche Telekom participates in the Global One joint venture with France Telecom and Sprint to offer seamless international telecommunications services to business customers, with a particular focus on the largest multinational corporations, and carrier-to-carrier services to international operators. The object of "seamless" service is to combine single contact customer service with uniformly high quality end-to-end technical and commercial service. At December 31, 1998, Global One had over 30,000 customers, 3,800 employees and facilities in over 65 countries. Deutsche Telekom owns a 10% interest in Sprint. Deutsche Telekom and France Telecom hold 2% cross-shareholdings and are parties to a November 10, 1998 cooperation agreement which has as its aim the achievement of efficiencies in areas such as research and development, multimedia, information systems and telephone cards.

In conjunction with Ameritech Corporation, Deutsche Telekom owns a controlling interest in Magyar Távközlési Rt. MATÁV, Hungary's largest telecommunications provider. Consolidated net revenues at MATÁV rose from HUF 81.1 billion for 1993, when Deutsche Telekom made its initial investment in MATÁV, to HUF 318 billion (€1.3 billion) for 1998, MATÁV's net income rose from HUF 814 million (€2.3 million) to HUF 58.4 billion (€232 million) over the same period. These figures are not adjusted for inflation. Deutsche Telekom has made strategic investments in other telecommunications enterprises outside Germany to take advantage of opportunities in other markets, particularly in mobile telephony. Several of Deutsche Telekom's recent international investments were made in coordination with France Telecom.

In the fully liberalized German telecommunications market, 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 German fixed-network and mobile telephony, online and data services and other services, and its expertise in information technology, Deutsche Telekom focuses increasingly on offering its customers "telematic" solutions, combining information technology with telecommunications, including voice, data and online services.

## **Historical Background**

Historically, the provision of public telecommunications services in Germany was a state monopoly as formerly provided by the German constitution. Until 1989, today's Deutsche Telekom was an integral and undifferentiated part of the Deutsche Bundespost, Germany's state postal, telephone and telegraph authority.

With the enactment of the first postal reform law (*Gesetz zur Neustrukturierung des Post- und Fernmeldewesens*) (called "Postreform I") in 1989, the Federal Republic began to transform the services administered by the Deutsche Bundespost into market-oriented businesses and divided the Deutsche Bundespost into three distinct entities along lines of business, including Deutsche Bundespost TELEKOM. Postreform I also started the progressive liberalization of the German telecommunications market.

When Germany was reunified in October 1990, Deutsche Bundespost TELEKOM became responsible for telecommunications services and infrastructure in the part of Germany that used to be the German Democratic Republic ("eastern Germany"). At that time, eastern Germany had an essentially obsolete telecommunications infrastructure and a total of 1.9 million access lines, representing a penetration rate of approximately 100 lines per 1,000 inhabitants, which was significantly below the penetration rate in western Germany. Deutsche Telekom therefore began a long-term project to expand and modernize the telecommunications network in eastern Germany, which was substantially completed in 1997. Deutsche Telekom also completed the digitization of its entire telecommunications network in 1997.

Under the second postal reform law (*Gesetz zur Neuordnung des Postwesens und der Telekommunikation*) (called "Postreform II"), Deutsche Bundespost TELEKOM was transformed into a private law stock corporation, Deutsche Telekom AG, with effect from January 1, 1995. Postreform II also provided the framework for the privatization of Deutsche Telekom.

The telecommunications sector in Germany was fully liberalized on January 1, 1998. Deutsche Telekom now faces stiff competition in its core business area, public fixed-line voice telephony, and is required to offer competitors access to its 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. See "—Regulation—Liberalization".

## Strategy

Since 1996, Deutsche Telekom has implemented a number of strategic initiatives to strengthen its competitive position. Many of the objectives set by the company at the time of its initial public offering have been accomplished on or ahead of schedule. Deutsche Telekom has streamlined its organization to increase its customer-orientation, reduced staff levels and improved business processes to increase productivity and reduce the time needed to bring new services to market. In addition, Deutsche Telekom has reduced indebtedness to improve its capital structure. Having completed the digitization of its network, Deutsche Telekom is able to introduce innovative products and services while reducing capital expenditures and depreciation charges.

Deutsche Telekom's objectives for the coming years are to build on its position as the leading fullservice provider in Germany and to be Europe's leading global telecommunications company.

In Germany, Deutsche Telekom during 1998 launched "Telekom-Future", a strategic initiative focused on generating new business in view of the expected downward trend of prices for basic transmission services. Under the initiative, Deutsche Telekom seeks to:

- preserve and strengthen its market position by promoting customer loyalty and increased usage in its core telephony and data transmission businesses; and
- take advantage of its highly sophisticated network and the increasing convergence between fixed and mobile telephony and voice and data transmission technologies to deliver new high value services to its customers, such as multimedia and system solutions.

In this regard, Deutsche Telekom will emphasize products and services that generate revenues not dependent solely on the transport of telecommunications traffic.

At the same time, Deutsche Telekom is continuing its efforts to reduce its overall cost level to improve productivity and increase margins.

Internationally, Deutsche Telekom expects to build on its strengths, with an emphasis on providing a wide range of products to customers on a pan-European basis, while developing a powerful position

in the European mobile and on-line/Internet markets. In this way, while consolidating its competitive position in Germany, Deutsche Telekom also seeks to capture new sources of revenue growth abroad. Overall, Deutsche Telekom's aim is to generate attractive returns for its shareholders.

To achieve these objectives, Deutsche Telekom is pursuing the following strategic priorities.

• Build on Its Position as the Leading Full-Service Provider in the Growing Telecommunications Market in Germany

**Promote Customer Loyalty.** As competition increases in its markets, an important element of Deutsche Telekom's success will be its ability to maintain customer loyalty. To this end, Deutsche Telekom has taken steps to improve its marketing and customer care. Deutsche Telekom has realigned its marketing efforts to focus separately on three main customer groups: residential customers, small and medium enterprises and large business enterprises. Customer care processes are being redesigned to improve quality and responsiveness and to anticipate the customers' needs. New channels for reaching the customer are being expanded rapidly, such as telemarketing and online marketing. On the regional level, Deutsche Telekom's organization has been streamlined to focus on the customer.

Increase Usage in Traditional Fixed-Line Telephony. To compensate for the effect of strong competition and falling tariffs on its revenues for fixed-line telephony services Deutsche Telekom is actively marketing new products and services that increase usage and revenues. A key element of the company's strategy is to further increase ISDN penetration in the German market, particularly among residential customers. In addition to paying a higher monthly access fee, ISDN customers tend, on average, to make more and longer calls than do customers with traditional analog lines. Deutsche Telekom now offers customers who opt for ISDN access lower long distance traffic charges and, under its "10plus" plan, a higher discount on calls over ten minutes than in the case of customers with analog access lines. Price plans are also being used as a means to increase traffic by rewarding frequent callers with lower average tariff charges. Supplementary services, such as call forwarding and voice messaging services, are also being promoted aggressively as a means of increasing the call rate and call duration.

Increase Cross-Marketing of Fixed/Mobile and Voice/Data Services. Deutsche Telekom is taking advantage of its leading position as a full service provider in Germany to bundle services such as fixed and mobile telephony and fixed telephony and online services. For example, Deutsche Telekom's new PCS (Personal Communication System) allows customers to be reached under the same telephone number on both the fixed and mobile networks and has a single voice mail message box. The company intends to benefit from increasing data traffic through the continued expansion of its T-Online Internet service and services such as T-DSL through which it can offer mass-market broadband capabilities to the company's telephony customers.

Attain Market Share Leadership in the German Mobile Voice and Data Market. Despite new market entrants, Deutsche Telekom will aim to maintain its mobile telephony market share at year-end 1999 levels and thereby capture market share leadership. The mobile penetration rate in Germany is relatively low by European standards, and Deutsche Telekom believes that there is considerable room for subscriber growth. To this end, Deutsche Telekom intends to attract new customers and to further stimulate usage by developing its brand name and offering innovative specific user tariff and product options. One important strategic initiative in this regard is the strengthening of its position in mobile data communications, such as through the introduction of new technology (GPRS) that increases the data transfer rate in mobile communications. To lower its cost base, Deutsche Telekom will make increasing use of its distribution network to market mobile telephony services. In addition, T-Mobil has decided to sell or discontinue all technical platforms, such as certain paging services, that now generate significant losses.

Expand T-Online Franchise and Develop Portal Business. Deutsche Telekom plans to extend T-Online's position as the market leader in Germany and Europe through continued innovation and attractive tariff packages. As part of its "portal" strategy, Deutsche Telekom is introducing new Internet access points in addition to its "t-online.de" home page, such as a shopping portal through which T-Online is able to offer its customers access to a marketplace for electronic commerce. Deutsche Telekom is extending its cooperation with strategic partners who develop the content which is aggregated on T-Online sites in order to provide information services that are increasingly tailored to particular interests and web users and thus create new targeted advertising opportunities. Through its partnership with Infoseek, Axel Springer Verlag and Verlagsgruppe von Holzbrinck, T-Online has launched a German language search engine, which Deutsche Telekom believes will further enhance customer loyalty and increase brand awareness. Deutsche Telekom intends to continue developing relationships in its online business with content providers such as booksellers, travel agents and financial service providers. Deutsche Telekom is also extending its online marketing channel. Through these measures, Deutsche Telekom believes that it will be able to develop important new sources of revenue from advertising, royalties for user-seller matching, webhosting and Internet telephony (PC-tophone).

Offer System Solutions to Business Customers. Deutsche Telekom has reconfigured its system solution business to reinforce Deutsche Telekom's position as a leader in provision of systems integration and outsourcing solutions to multinational customers. In addition, the company will provide pre-customized business applications for important businesses processes, such as accounting and management information systems. These applications will be offered to smaller business enterprises through high-speed access channels, such as T-DSL and T-Interconnect. Using this approach, and in cooperation with software providers, Deutsche Telekom will make systems solutions commercially attractive to smaller companies.

Secure Investors for the Broadband Cable Business. Deutsche Telekom announced plans in 1998 to regionalize its cable business and to invite third party investors to participate in its future. Although Deutsche Telekom may consider a variety of approaches to accomplishing it goals, the company generally expects to retain an interest in its cable operations, so as to maintain a link to the cable customer for purposes of marketing other services. Deutsche Telekom intends to continue actively pursuing discussions with prospective investors.

**Implement Further Cost Reduction Measures.** To further increase productivity and improve margins, Deutsche Telekom intends to intensify its cost-cutting measures. The company expects to reach the personnel reduction target announced in 1996 ahead of schedule in the year 2000. Interest costs have benefited from a steady reduction in debt levels and refinancing programs, while tighter capital expenditure will continue to contribute to a fall in depreciation. Deutsche Telekom is actively exploring ways of generating savings in respect of other cost items. In addition to continuing its efforts to reduce personnel, interest and depreciation costs, Deutsche Telekom expects to achieve further savings with regard to the cost of goods and services purchased and other operating expenses. To this end, the company is streamlining its CPE/CPS operations and has introduced measures such as zero-based budgeting with respect to consultancy fees.

# Become Europe's Premier Global Telecommunications Company

Deutsche Telekom's intention is to become the leading pan-European full service provider for basic and value-added telecommunications services in the consumer and business markets. Globally, Deutsche Telekom intends to become one of the leading providers of high quality Internet and intranet solutions for business customers. Accordingly, Deutsche Telekom is constructing an global Internet protocol backbone and plans to expand its activity in this area in the United States and Asia.

For Deutsche Telekom, the strategic goals and ambitions that inspired its discussions with Telecom Italia remain firmly in place. Although the conditions that led to the discussions entered into by the two parties have changed considerably as a result of Olivetti's unsolicited bid for the ordinary shares of Telecom Italia, Deutsche Telekom remains interested in talking with Telecom Italia's new management and other parties about mutually beneficial international arrangements, particularly in the areas of mobile telecommunications, data communications, systems solutions and online services with an emphasis on Europe and possibly also the United States.

**Global One.** Through Global One, its joint venture with France Telecom and Sprint, Deutsche Telekom provides seamless international services to its multinational and other large business customers. Despite differences with France Telecom, Deutsche Telekom continues to support Global One and supports the ongoing restructuring efforts which are necessary to reduce the joint venture's cost base and improve its overall profitability. In this regard, in April 1999, Deutsche Telekom, France Telecom and Sprint agreed on plans for a \$700 million capital increase for Global One, with Deutsche Telekom to contribute approximately \$205 million of the total.

**Selected International Engagements.** Through its interest in MATÁV, Hungary's leading telecommunications company, Deutsche Telekom participates in the expanding Hungarian telecommunications market. Deutsche Telekom has made a number of investments in mobile operators in Central and Eastern Europe (Poland, the Czech Republic, Russia (Moscow) and the Ukraine). In Southeast Asia, Deutsche Telekom is focusing on improving the operational and financial position of its investments in China, Indonesia, Malaysia and the Philippines in light of the difficult economic conditions prevailing there. Among the measures Deutsche Telekom is prepared to consider are increases in the equity of or subordinated loans made to these companies that would raise Deutsche Telekom's management influence. In Western Europe, Deutsche Telekom recently acquired majority control of max.mobil., the Austrian mobile operator, and holds a significant stake in WIND, a new Italian telecommunications provider. Deutsche Telekom is also setting up city rings in major European business centers, such as London, Geneva and Zurich.

Deutsche Telekom is considering ways of repositioning some of its existing portfolio, while also exploring new opportunities for investment. Deutsche Telekom intends to make further selective acquisitions in mobile operators to further expand its European mobile subscriber base and is planning to expand its successful Internet business across Europe through internal growth and acquisitions.

### Organization

In September 1998, Deutsche Telekom's supervisory board approved a new organizational structure for the company. This new structure, which came into effect on October 1, 1998, reflects Deutsche Telekom's emphasis on strengthening customer care. Under the new structure, Deutsche Telekom's three principal divisions, in addition to management and service units, are Product Marketing, Sales and Customer Care and International. The Product Marketing Division comprises the Group business areas for telephone network communications, special value-added services, terminal equipment, data communications, multimedia communications and systems solutions. It is responsible for product design, product management and definition of strategic marketing criteria. The new Sales and Customer Care Division is responsible for business planning for the various customer segments and for the implementation of marketing strategies. It provides sales feedback to the Product Marketing Division, along with suggestions for product design. The Sales and Customer Care Division controls all national sales and service units.

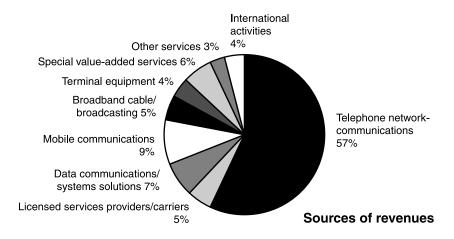
The International Division now houses responsibility for the oversight of Deutsche Telekom's participation in Global One and other international joint ventures, for the management of Deutsche Telekom's foreign subsidiaries and offices abroad, and for the identification of potential markets outside Germany.

Separately, Deutsche Telekom's headquarters operations are currently being reorganized to enhance Deutsche Telekom's overall business and customer focus and to support a system of internal markets. Following the reorganization, headquarters will focus exclusively on the strategic management of the Deutsche Telekom group and its units. Under the new structure, all market operations and internal services are being organized into profit-responsible units that will have greater autonomy.

Financial reporting is conducted by the finance department independently of operations management. The finance department also independently analyzes investments and projects, particularly international investments, taking into account shareholder value and their potential impact on earnings.

### Deutsche Telekom's Revenues by Business Area

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. Broadband cable and broadcasting, the supply and sale of terminal equipment, special 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 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 1998 expressed as a percentage of consolidated net revenues for that year.



### **Telephone Network Communications**

Telephone network communications—in essence, the provision of voice telephony services through the Deutsche Telekom fixed line network—is Deutsche Telekom's core business. In 1998, Deutsche Telekom generated net revenues of  $\in$ 20.5 billion (57.5% of Deutsche Telekom's net consolidated revenues) and net income before taxes  $\in$ 4.8 billion from this area. The telephone network communications business area includes access services and local, national long distance and international calling services. 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, videotelephony, 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, 1998, Deutsche Telekom provided over 36.4 million standard analog access lines. In addition to these standard analog access lines, as of December 31, 1998, Deutsche Telekom had installed over 4 million ISDN access lines, representing a total of 10.1 million channels. Of this number, 6.2 million were connected with business customers and 3.9 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 1998, Deutsche Telekom achieved overall ISDN channel growth of 38.7%, representing 27% growth among business customers and 63% growth among residential customers. Deutsche Telekom expects demand from residential customers for ISDN to continue to grow.

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.

	As of December 31,					
	1998	1997	1996	1995	1994	
Access Channels(1):						
Total access channels (millions)	46.5	45.2	44.2	42.0	39.9	
Of which:						
Standard analog lines (millions)(2)	36.4	37.8	39.0	39.2	38.2	
ISDN						
Basic access lines (thousands)(3)	3,996.9	2,831.2	1,918.3	846.4	460.5	
Primary access lines (thousands)(3)	70.0	56.0	45.6	35.0	29.9	
Total ISDN channels (millions)(3)	10.1	7.3	5.2	2.7	1.7	
Penetration(1)(4):						
Standard access lines	44.4	46.1	47.6	47.9	46.8	
ISDN channels	12.3	8.9	6.3	3.3	2.1	
Total penetration rate	56.7	55.1	53.9	51.3	49.0	

(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.

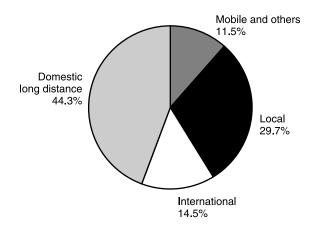
(4) Number of Deutsche Telekom lines or channels per 100 inhabitants. Figure for 1998 calculated on the basis of population as of September 30, 1998. Figures may not add to 100% due to rounding.

To stimulate ISDN demand, as part of its recent tariff initiatives, Deutsche Telekom implemented lower 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 "—Tariffs". While an increase in ISDN lines tends to result in a decline in the number of analog lines, two of which may be replaced by a basic ISDN line, increased ISDN penetration contributes overall to higher fixed-line revenues.

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) would have the effect of further stimulating such competition.

## **Overview of Calling Services**

Deutsche Telekom provides comprehensive local, national and international long distance fixedline 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 1998.



In 1998, net revenues from fixed-line calling services amounted to  $\in$ 14.4 billion. Residential customers provided 62.9% of call revenue, while 37.1% was generated by business customers. Revenue from calls to mobile numbers rose 11% over the previous year's figure while revenues from calls to online services grew 74%.

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, although such competition is expected to increase as competitors begin to offer access services. In the long distance market, competition in 1998 was waged predominantly on the basis of price. Deutsche Telekom's competitors were able to gain significant market share, with competition making itself particularly felt in the second half of the year. 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 is countering the challenge posed by its competitors with sharply reduced tariffs and innovative, customer-oriented and reliable products and services.

# Domestic Traffic

The following table sets forth certain statistical data regarding domestic telephone traffic:

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996(1)	1998/1997	1997/1996
				(% ch	ange)
Minutes from local calls (in millions)	118,843	110,912		7.2	
Minutes from domestic long distance calls (in					
millions)	45,260	48,699		(7.1)	
Minutes from calls to mobile networks (in					
millions)	4,043	2,972		36.0	
Minutes from other services (in millions)	7,890	4,243		85.9	
of which connections to T-Online (in millions)	7,744	4,156		86.3	—
Total minutes from domestic calls (in					
millions)	176,036	166,826	—	5.5	

(1) Data not available for 1996. Minutes are estimates.

In 1998, Deutsche Telekom's customers generated 6% more domestic traffic minutes than in 1997. Although long distance minutes declined, as Deutsche Telekom lost market share to competitors, local traffic increased significantly, driven primarily by growth in the number of households and by calls to online service providers. Fixed-to-mobile traffic and traffic to Deutsche Telekom's T-Online Internet platform also showed very strong growth. Deutsche Telekom expects these trends to continue.

The following table sets forth information relating to the number of domestic calls, average revenue per call and average monthly revenue from traffic per access line for the periods indicated.

	Year ended December 31,			Year ended December 31,	
	1998	1997	1996	1998/1997	1997/1996
				(% ch	ange)
Domestic calls (in billions)	52.7	52.7	50.7	0.0	3.9
Average revenue per domestic call (in €)Average monthly revenue from domestic traffic per	0.24	0.25	0.24	(4.7)	2.2
access channel (in €)(1)	22.45	24.34	23.57	(7.6)	3.1

(1) Including ISDN channels.

While domestic traffic increased overall in 1998 due to longer average call duration, average revenue per call and per access line declined in the domestic market, reflecting the effect of Deutsche Telekom's tariff initiatives. See "—Tariffs."

## Outbound International Traffic

The following table sets forth outbound international traffic in millions of minutes broken down by geographic regions:

	Year ended December 31,(1)				
	1998	1997	1996	1998/1997	1997/1996
				(% ch	ange)
Western/Central Europe and Mediterranean countries	3,932	4,102	4,096	(4.1)	1.4
USA/Canada	337	306	312	10.1	(1.9)
Others	442	405	353	9.1	14.7
Total	4,711	4,813	4,761	(2.1)	1.9

(1) Estimated outgoing minutes.

## Tariffs

Tariffs charged by Deutsche Telekom for its fixed-line voice telephony services are subject to regulatory approval. Under the TKG, these tariffs will continue to be subject to regulation for so long as Deutsche Telekom is considered to be a market-dominant provider of these services. Effective January 1, 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 rental charges and traffic charges. Traffic charges are based on a charging unit. 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 distance called, the time of day and whether the day is a business day, a weekend or a public holiday.

Subject to applicable regulatory limits, Deutsche Telekom intends to continue adjusting its tariffs to align its charges more closely with underlying costs and 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—Pricing" 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 are higher for ISDN access lines than for standard access lines. As part of its 1996 tariff reform, Deutsche Telekom raised its standard connection fee. Since 1996, access charges have remained constant. Deutsche Telekom's current initial connection fees and monthly subscription fees (including value added tax) are shown in the following table.

Standard connection fee	DM	100.67
Standard monthly subscription fee	DM	24.82
Basic ISDN connection fee	DM	100.67
Basic ISDN monthly subscription fee	DM	46.40

#### Traffic Charges

In 1996, Deutsche Telekom introduced a far-reaching reform of its tariff structure which, among other things, generally increased the price of many local calls and decreased the price of most long distance and international calls. In March 1998, Deutsche Telekom built on its comprehensive 1996 rate reforms by reducing rates again. The 1998 tariff initiative featured further decreases in long-distance and international calling rates, longer billing unit intervals for weekend calls and a reduction in charges for calls to Deutsche Telekom's mobile communications network.

In keeping with its strategy of focusing on the customer, Deutsche Telekom offers basic rates, discount rates and optional calling plans that are specifically tailored to the needs of customer groups. For example, in 1998, Deutsche Telekom integrated the "10plus" tariff feature into the standard rates, which is attractive to customers who make long telephone calls. Every customer automatically saves 10% with an analog line (or 30% with an ISDN line) after the tenth minute on certain long distance calls and calls into Deutsche Telekom's mobile network. In addition, new optional calling plans are introduced and existing plans are improved from time to time to heighten the appeal of Deutsche

Telekom's service offerings. The new "Select 5plus" optional calling plan gives customers discounts on calls to several selected telephone numbers.

In early 1999, Deutsche Telekom introduced an optional basic tariff tailored to the demands of business customers with features such as seconds based billing and improved service. Based on this tariff, the option "BusinessCall 500" provides small and medium sized business customers a discount based on the type and volume of their calls from one company location. To meet the needs of large business customers the option "BusinessCall 700" was introduced in early 1999. BusinessCall 700 provides multi-tier discounts based on the type and volume of the type and volume of the customers calls from multiple company locations. Additionally, BusinessCall 700 provides special benefits on international calls between the company locations and to a few selected countries.

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

	Year ended December 3		
	1998	1997	1998/1997
	DM minu		(% change)
City/Local	0.07	0.07	0.0
Domestic long distance	0.28	0.30	(8.6)
International			(15.1) (18.2)
	0.70	0.00	(10.2)

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

### Local and National Call Charges

The following table sets forth Deutsche Telekom's local and national long distance per minute traffic charges based on a four minute call as in effect on April 1, 1999.

	Peak(1)	Off- Peak(2)	Evening and Night(3)
	DM	DM	DM
Local (less than 20 km)	0.09	0.06	0.03
Long distance			
Less than 50 km	0.24	0.12	0.06
More than 50 km	0.36(4)	0.12	0.06

(1) Weekdays—9:00-18:00.

(2) Weekdays—Local: 5:00-9:00, 18:00-21:00; Long distance: 6:00-9:00, 18:00-21:00.

(3) Weekdays—Local: 21:00-5:00; Long distance: 21:00-6:00.

(4) DM 0.24 for ISDN access lines, T-Net 200 access lines and access lines with a T-Net Box.

On weekends, a uniform price of 12 pfennigs per minute applies to all national long-distance calls outside the local zone on all lines, even during the day. The "10plus tariff", with a discount of 10% for analog calls and 30% for ISDN calls after the tenth minute, applies to all long distance calls daily between 6 a.m. and 9 p.m.

To stem market share loss in long distance calls, Deutsche Telekom considerably reduced its tariffs from 1998 levels for these types of calls at the beginning of 1999. The reductions, which are reflected in the table shown above, allow Deutsche Telekom's customers to save up to 62% over prior rates for certain calls. The reductions made rates particularly attractive for Deutsche Telekom's ISDN customers, in order to enhance further the appeal of ISDN connections. Deutsche Telekom used the rate reduction initiative to simplify its tariff structure considerably.

Deutsche Telekom expects that competition will lead to additional tariff initiatives in 1999, although, in view of the site of the tariff reductions that have already occurred, at a much more measured pace. Deutsche Telekom plans to introduce additional calling plans for residential customers and to modify some business calling plans to adapt to the constantly changing market situation.

## International Call Charges

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 regions. Deutsche Telekom's international tariffs are subject to the same regulatory regime as its domestic tariffs. See "—Domestic" and "—Regulation—Special Requirements Applicable to Market-Dominant Providers—Pricing".

The tariff reform commenced by Deutsche Telekom in January 1996 also included a reform of Deutsche Telekom's international tariffs. The reform reduced international tariffs, rebalancing them to align them more closely with underlying costs and usage patterns, and increased price differentiation according to time of day.

Deutsche Telekom has applied for a reduction of the rates for calls to many European countries as well as the U.S. and Canada, which would generally take effect in June 1999. For example, Deutsche Telekom intends to reduce the rate for calls to Poland by 50%. Additional tariff measures for international calls will be introduced depending on the development of competition.

	Through	May 31, 1999	
Country	Tariff	Times	pfennigs per minute
France(1)	Standard	Mo Fr. 8:00 - 18:00	84
	Savings	All other times	72
USA	Standard	Daily 0:00 - 3:00 14:00 - 24:00	84
	Savings	Daily 03:00 - 14:00	72
Austria(1)	Standard	Mo Fr. 08:00 - 18:00	84
	Savings	All other times	72
Italy(1)	Standard	Mo Fr. 08:00 - 20:00	84
	Savings	All other times	72
Great Britain(1)	Standard	Mo Fr. 08:00 - 18:00	84
	Savings	All other times	72

The following tables show the cost of a one-minute call to selected destinations.

(1) The price per minute for calls to Paris, Vienna, Milan and London is fixed at 72 pfennigs per minute.

	Starting June 1, 1999	
Country	Times	pfennigs per minute
France, USA, Austria, Italy, Great Britain	Daily 0:00 - 24:00	48

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 "—Licensed Service Providers and Carriers."

### 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 that will both secure customer loyalty and enhance Deutsche Telekom's revenues.

In 1998, Deutsche Telekom has launched a commercial pilot test of T-NetCall, an Internet telephony service, in North America and in some countries in Central Europe. These pilot tests cover both conventional phone-to-phone telephony and new applications such as "GSM-to-phone" (involving cellular phones) and "PC-to-phone" (involving personal computers), all via the Internet. The PC-to-phone service has also been undergoing testing in Deutsche Telekom's home national market via T-Online since the beginning of 1999. Deutsche Telekom expects Internet telephony to be a growing market in the coming years. In early 1998, Deutsche Telekom strengthened its position as an innovator in this market segment by acquiring a 20.2% stake in the Israeli company VocalTec Communications Ltd., a market leader in Internet protocol (IP) telephony software.

In addition, Deutsche Telekom has introduced PCS (Personal Communication System), a combination product that integrates the fixed network with mobile communications. PCS is aimed at residential customers and small business customers. PCS subscribers can be reached under the same fixed network number in both the fixed and mobile communications networks, and they receive an integrated answering machine (PCS-Box). In addition, the subscriber receives only one bill and a discount on calls from his fixed line to his mobile phone.

During 1998, Deutsche Telekom provided virtual private network solutions (T-VPN) to around 200 large business customers and multinational corporations. New technologies enable Deutsche Telekom to introduce services in its networks that are normally provided only by private automated branch exchanges installed on customer premises. In 1999, Deutsche Telekom plans to integrate mobile communications and a range of additional value-added services within its virtual private network services.

## Licensed Service Providers and Carriers

Many new providers entered the completely liberalized German telecommunications market during 1998. Many 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 licensed service providers and carriers 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 1998 was €1.61 billion, or 4.5% of the consolidated revenues of Deutsche Telekom. This represents an increase of 31.2% over 1997.

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

The products and services provided by the licensed service providers and carriers 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 prices set by the Post Ministry in September 1997 will remain in force until the end of 1999. The terms for interconnection of Deutsche Telekom's telephone network with networks of other national providers are contained in bilateral contracts. As of the end of 1998, Deutsche Telekom had signed 69 such agreements.

An additional 170 companies had submitted requests for negotiations, which commence when the requesting party has obtained an appropriate license. Requests for leased lines for carriers, i.e., transmission paths that are made available to competitors in the fixed-line network, rose sharply in 1998. 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 current interconnection rates established by the Regulatory Authority, which remain in effect until the end of 1999:

		Off-Peak (9 p.m. to 9 a.m.)
	(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

Deutsche Telekom is required to offer competitors so-called "unbundled" access to the subscriber line ("bare wire") as a direct access to the customer. On February 8, 1999, the Regulatory Authority set at DM 25.40 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—Fixed-Fixed Interconnection" for a discussion of regulatory developments relating to subscriber access.

### International Call Termination

The licensed service providers and carriers 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 and provides carriers' carrier services for calls that originate outside Germany and are routed through Germany for termination in a third country. At the end of 1998, Deutsche Telekom maintained business relationships with about 300 foreign telephone companies. In 1998, Deutsche Telekom continued to introduce innovative products, such as pool routing and international backhaul services, which recorded an increase in revenues of 47% as compared to 1997.

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.

	Year end	ded Decen	nber 31,
Call Origin	1998(1)	1997	1996
	(billic	ons of min	utes)
Europe Zone 1 <sup>(2)</sup>	4.166	4.028	3.186
Europe Zone 2 <sup>(3)</sup>	0.597	0.581	0.513
United States/Canada	0.912	0.834	0.710
Other regions	0.361	0.175	0.261
Total	6.036	5.618	4.670

## (1) Estimate.

(2) Includes the European Union, Switzerland, Poland, Czech Republic and Slovakia.

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

Deutsche Telekom pays for the use of networks of other carriers 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 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 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 1998, Deutsche Telekom's average bilateral settlement rates per minute decreased by 20% in comparison with the previous year.

Responding to changes in the marketplace, Deutsche Telekom has introduced innovative settlement arrangements. These purely commercial agreements between Deutsche Telekom and foreign carriers represent an important step toward cost and market oriented termination of international public switched telephone network traffic and allow for flexible price and volume arrangements. Deutsche Telekom's first agreement of this kind, the International Simple Resale Agreement, was signed with AT&T in May 1998. Subsequently, Deutsche Telekom has concluded a number of similar agreements with carriers located in the United States, Europe and other parts of the world.

## **Data Communications/Systems Solutions**

Deutsche Telekom's data communications and systems solutions business area involves the use of modern data communications technology in the design of systems solutions for large, complex business customers. 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. Deutsche Telekom draws on these data transmission services to offer a variety of systems solutions, including intranet and customized Internet solutions, for its corporate customers. This business area's net revenue in 1998 was €2.5 billion (or 7% of the consolidated revenues of Deutsche Telekom), an increase of 7.8% over 1997.

## Data Communications

Data communications is one of the fastest growing areas of telecommunications. As a result of booming Internet usage and the rise of multi-location companies interconnected via intranets, the growth of data traffic exceeds the growth of telephone traffic in global telecommunications networks. Deutsche Telekom is responding to steadily increasing data communications requirements with a broad portfolio of products and services and with customized solutions. It plans to develop new markets in this growth sector. The data communications services are increasingly incorporated into integrated services such as system solutions and multimedia.

Deutsche Telekom's 1998 revenue from data communications activities amounted to €1.0 billion, reflecting little change from 1997 despite strong pressures on price. Data communications contributed 2.9% of the consolidated revenues of Deutsche Telekom in 1998.

## 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, direct 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. Increasingly, Deutsche Telekom's customers have been using digital leased lines, which provide much higher transmission capacity than analog connections.

The LeasedLink area has seen a marked trend toward broadband transmission rates. In 1998, the bandwidth Deutsche Telekom marketed in leased lines for data communications grew by 21%.

Deutsche Telekom reduced its tariffs for digital standard leased lines by 14% on March 19, 1998 and its tariffs for digital leased lines for data communications by 12% on April 1, 1998.

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

	At December 31,		
Number of Leased Lines	1998	1997	1996
Digital Leased Lines:			
64 Kbits/sec	34,847	29,958	24,195
2 mbits/sec	8,665	7,483	6,578
More than 2 mbits/sec	96	57	56
Total	43,608	37,498	30,829

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 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 actual prices that Deutsche Telekom charges its customers.

	At December 31,		
Tariff rates (in DM/km)	1998	1997	1996
Digital Leased Lines:			
64 Kbit/s	14.88	16.36	16.96
2 mbit/s	73.15	81.72	102.11
34 mbit/s	500.84	636.91	795.08

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

*Datex-P Service.* Deutsche Telekom's Datex-P service is a packet-switched data transmission service based on the well-established X.25 protocol. Although 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 1998, Deutsche Telekom's customers were using some 85,700 Datex-P lines and 50,900 access authorizations. In 1998, Deutsche Telekom introduced a new rate structure for Datex-P and bundled the service with many of its other products and networks. In addition, Deutsche Telekom marketed a service that permits customers to use Datex-P via ISDN-D channels.

*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 excess throughput. 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 1998, Deutsche Telekom further simplified FrameLink Plus rates structures for its customers and implemented price reductions of up to 30%. Deutsche Telekom also introduced additional FrameLink Plus services, such as the integration of voice transmission (voice over data), SNA systems network architecture from IBM and the ability to transfer data from the FrameLink Plus platform to Deutsche Telekom's ATM or Datex-P platforms.

*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 1998, Deutsche Telekom inaugurated an additional eight "City-Netz" networks, thereby increasing the total in operation to 36. 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-Net ATM or T-InterConnect.

*T-Net ATM.* Deutsche Telekom's offers high speed Asynchronous Transfer Mode (ATM) data transmission service by means of T-Net ATM, which is now accessible nationwide throughout Germany at 42 locations. T-Net ATM is one of the world's most modern telecommunications structures. Deutsche Telekom is the market leader 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.

In October 1998, Deutsche Telekom introduced switched connections via T-Net ATM, thereby considerably expanding the possibilities for ATM communications. In December 1998, Deutsche Telekom, in cooperation with Global One, launched its Global ATM service, which provides broadband telecommunications links to an initial 13 countries. Deutsche Telekom plans to expand this service in 1999.

*T-InterConnect.* Deutsche Telekom has created a high-performance IP-based network platform for Internet and Intranet communications applications, T-InterConnect. The network comprises 74 national network nodes that are 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 to support Internet and intranet solutions for the customers of Deutsche Telekom.

In 1998, Deutsche Telekom established itself as one of Germany's largest Internet service providers for business customers. Content providers such as the ProSieben TV broadcasting company now use broadband links to T-InterConnect to deliver information and entertainment content to the Internet.

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," which feature dial-in access through ISDN, through Deutsche Telekom's T-D1 mobile communications network and through the Datex-P service. Intranet solutions based on T-InterConnect are currently being realized for a number of customers. Deutsche Telekom also plans to offer Intranet Solution on the basis of T-Net ATM in 1999.

*T-DSL.* ADSL technology (Asymmetrical Digital Subscriber Line) allows broadband data connections to be run through the regular copper wire pairs found in telephone lines. In 1998, Deutsche Telekom began to develop the potential of ADSL-based broadband communications for its customers, under the general brand name "T-DSL". In June 1998, Deutsche Telekom launched a pilot project in North Rhine-Westphalia that tested various applications for fast ADSL connections. In addition to broadband Internet access for private households, the pilot project included ADSL-based access to Deutsche Telekom's T-InterConnect platform and to T-Net ATM. With ADSL, Deutsche Telekom aims to bring the benefits of fast Internet communications to even small and medium-sized companies.

Deutsche Telekom began offering ADSL service under the brand name T-DSL in a package with ISDN to business customers in April 1999. Deutsche Telekom expects to offer this service to customers in 43 towns and cities by the end of 1999. ADSL technology permits fast access to the Internet by allowing customers to receive data over ordinary telephone lines at a transfer rate of up to 6 Mbit per second. Therefore, Deutsche Telekom also plans to commence offering ADSL together with T-Online, its Internet access service, in July 1999.

### Systems Solutions

In today's competitive environment, companies are relying ever more on telecommunications and information technology (IT) in their operations and customer relations. Increasingly, companies are seeing customized telecommunications and IT applications as the key to optimizing their business processes. With systems solutions, Deutsche Telekom produces customized telecommunications solutions, such as Intranets, and IT applications in a process that includes comprehensive process analysis, solution design and expert implementation.

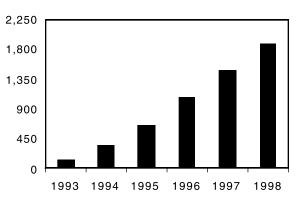
Deutsche Telekom's systems solutions business is conducted through DeTeSystem, a subsidiary of Deutsche Telekom whose purpose is to provide intensive support to large companies and institutions with major telecommunications expenditures. Deutsche Telekom cooperates closely with Global One in implementing international systems solutions.

In 1998, systems solutions activities generated revenues of €1.5 billion, or 4.1% of the consolidated revenue of Deutsche Telekom. This represented revenue growth of 15.8% over 1997.

### **Telekom Designed Networks**

Telekom Designed Networks (TDN) are a central component of the services provided by the Systems Solutions business area. With TDNs, Deutsche Telekom offers its large corporate customers communications solutions that are tailored in accordance with 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 1998, the number of large corporate customers with Telekom Designed Networks continued to grow. As of the end of 1998, a total of 2,108 TDN contracts had been signed, 473 more than by 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.



(number of TDN contracts)

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.

#### Mobile Communications

Deutsche Telekom's mobile communications business area generated revenue of  $\in$ 3.1 billion (8.6% of the consolidated revenue of Deutsche Telekom) and net income before taxes of  $\in$ 672 million in 1998. Approximately 86% of the consolidated revenues of this business area in 1998 were derived from mobile telephone service, with the remaining 14% derived from handset sales and from the sale of paging and other services.

With 6.4 million mobile phone customers in its two networks at March 31, 1999, Deutsche Telekom estimates that its share of the overall mobile telephony market in Germany was approximately 41.8% at that date.

Viewed as a separate company, T-Mobil, Deutsche Telekom's mobile communications subsidiary, reported revenues of €3.8 billion in 1998. The difference between this figure and revenue reported for the mobile communications business area results from use of the T-Mobil network for calls from Deutsche Telekom's fixed network.

### Mobile telephone service

# 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 78% of revenues from Deutsche Telekom's mobile communications business area were derived from T-D1 in 1998. This figure does not include revenues from sales of handsets.

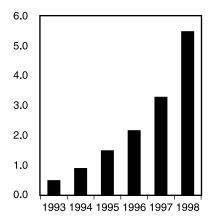
The importance of digital mobile communications networks in Germany has grown steadily since the T-D1 network went into operation in July 1992. The GSM standard, in whose development Deutsche Telekom played a major role, is now the technical basis for well over 200 digital mobile communications networks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

T-Mobil carried out a major expansion of its own GSM network during 1998. In the course of the year, the number of base stations in the T-D1 network increased from about 8,000 to about 13,500. At year-end 1998, the T-D1 network had 585 base station controllers and 44 switches. The investments made by T-Mobil in connection with network expansion in 1998 amounted to approximately  $\in$ 435 million. T-Mobil plans to continue this expansion in the coming year and has budgeted more than  $\in$ 600 million for investment in the T-D1-network in 1999. The network is expected to feature a total of 22,000 base stations by the end of 1999.

Prior to 1998, Deutsche Telekom had entered into roaming agreements with 91 operators in over 64 countries, which in principle allow T-D1 subscribers to make and receive calls while abroad on the same mobile phone they used in Germany. In 1998, Deutsche Telekom further expanded the global coverage of the T-D1 network by entering into 28 new roaming agreements with GSM operators. Among these agreements are contracts with several operators of local digital mobile communications networks in the U.S.—for example, in New York, Miami and Denver—and in Canada. A roaming agreement with the satellite service operator Iridium now enables T-Mobil customers to make mobile phone calls from nearly every point on the globe. The mobile phones that customers need to use these roaming services are available directly from T-Mobil.

*Subscribers.* At the end of 1998, the T-D1 network had nearly 5.5 million subscribers, or 2.2 million (67%) more than it had a year earlier. The following chart shows the number of T-D1 customers at the end of each year indicated.

#### Number of customers in millions



The average number of subscribers per employee, which is viewed by T-Mobil as a measure of efficiency, was 20% higher in 1998 than in 1997.

The following table sets forth the average number of subscribers and average monthly revenue per subscriber in T-Mobil's networks for the periods indicated.

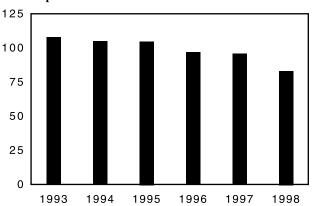
	Year ended December 31,				
	1998	1997	1996	1998/ 1997	1997/ 1996
				(% ch	ange)
Average number of subscribers (in thousands) T-D1	4,217	2,663	1,766	58.4	50.8
Average monthly revenue per subscriber (in €) T-D1(1)	47	57	64	(17.7)	(10.8)

 Does not include premiums or surcharges paid by T-D1 subscribers to independent service providers.

The average monthly revenues per subscriber shown in the preceding table have been calculated on the basis of consolidated revenues, which do not include revenues from calls made by Deutsche Telekom subscribers that are terminated in Deutsche Telekom's mobile network. If revenues from these mobile terminated calls and from monthly rentals, roaming and visitors are taken into account, average monthly revenue per subscriber was  $\in$ 63 in 1998, as compared to  $\in$ 77 in 1997.

T-Mobil had a churn rate in 1998 of approximately 15%, representing the percentage of T-Mobil customers whose service was discontinued due to a payment default and customers who gave up a Deutsche Telekom mobile telephony service. Deutsche Telekom estimates that the average churn rate during 1998 for D2 was 12% and for E-Plus was 21%. Although T-Mobil's churn rate is presently lower than T-Mobil had expected, the churn rate is expected to rise when 24-month contracts signed in 1997 begin to expire in 1999. Deutsche Telekom is taking steps to counteract this expected increase, including the development of systems to identify customers who are more likely to give up Deutsche Telekom's mobile services.

*Traffic.* In the three month period ended March 31, 1999, average monthly outgoing traffic per T-D1 subscriber was 68 minutes. The following table sets forth average monthly outgoing traffic per T-D1 for the years indicated:



#### Traffic in minutes per subscriber per month

Deutsche Telekom expects that average outgoing traffic per subscriber is likely to continue to decline over the next few years as the percentage of mobile telephony customers that are lower-volume residential customers continues to increase.

T-Mobil recently entered into an agreement with VIAG Interkom which provides for the purchase of a significant number of bulk minutes for national roaming purposes by VIAG Interkom. T-Mobil expects that this agreement, which is subject to regulatory approval, would lead to increased utilization of its 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.

**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 1998, traffic charges (including those paid by independent service providers) accounted for approximately 69% and monthly rental charges and initial connection fees together accounted for approximately 31% of net revenues generated by T-D1.

Tariffs for subscribers serviced directly by T-Mobil are set by T-Mobil, although they would subject to regulatory review if T-Mobil were deemed to have a dominant position in certain relevant markets. See "Regulation—Special Requirements Applicable to Market-Dominant Providers". During 1998, T-Mobil promoted the development of the German GSM market with a series of tariff innovations. In the summer of 1998, T-Mobil became the first network operator in Germany to introduce "Local" rates, giving each customer a daytime rate of 68 pfennigs per minute to a local area code of his or her choice within the German fixed network. In mid-November 1998, T-Mobil offered customers the option of adding a second local area code. Another major step toward the mobile communications mass market came in early December, when T-Mobil reduced peak-time "TellyLocal" calling rates for residential customers by 31%, from DM 1.89 to DM 1.29. Additional tariff initiatives are planned for 1999.

The following table sets forth information relating to the tariff packages that T-Mobil makes available to T-D1 customers, giving effect to the tariff initiatives described above.

	Calling Plan				
	Xtra	Telly	TellyPlus	ProTel	ProTel Data Only
		(in DM)			10.05
One-time connection fee		49.95	49.95	49.95	49.95
for 60-second intervals		24.95			
for 10-second intervals		29.95	49.95	69.95	23.95
Call charges (per minute)					
National—mobile to fixed					
daytime(1)	1.99	1.29	0.79	0.49	0.68
nighttime(2)	0.99	0.39	0.39	0.39	0.39
National—mobile to mobile					
daytime(1)	0.99	0.68	0.68	0.39	0.68
nighttime(2)	0.99	0.39	0.39	0.39	0.39
T-D1 Local—mobile to fixed(3)					
daytime(1)	_	0.68	0.48	0.68	0.48
nighttime(2)	_	0.39	0.28	0.39	0.28
T-D1 City(3)	_	0.29	0.29	0.29	0.29
T-D1 Weekend(3)		0.29	0.29	0.29	0.29

(1) Monday through Friday 7:00 to 17:00 for the "Telly" plan, Monday through Friday 7:00 through 20:00 for the "Xtra", "TellyPlus", "ProTel" and "ProTel Data" plans.

(2) All other times Monday through Friday; Saturdays, Sundays and national holidays.

(3) 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, while most of the remaining T-D1 customers use one of the "ProTel" tariff packages. Although use of the prepaid

"Xtra" calling packages increased in 1998, customers using the "Xtra" packages still accounted for less than 10% of T-D1 customers in 1998. Deutsche Telekom expects prepaid service offerings to increase in acceptance in 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 8% to the total revenue of the mobile communications business area in 1998. At March 31, 1999, approximately 343,000 customers were still using T-C-Tel, T-Mobil's analog network. Deutsche Telekom has determined, however, that T-C-Tel will no longer be actively marketed in the future, and Deutsche Telekom intends to offer existing T-C-Tel customers the option of transferring to the T-D1 platform on attractive terms. Deutsche Telekom currently intends to discontinue T-C-Tel Service by December 31, 2000.

## Paging and Other Services

### Radio paging

T-Mobil provides a variety of radio paging services under the names Cityruf, Scall and Skyper. The number of T-Mobil's radio paging customers has declined from approximately one million in 1996 to approximately 700,000 at year-end 1998. This decline has resulted primarily from the substitution of mobile telephony for paging services. Due to this increasing substitution effect, T-Mobil has decided to sell its radio paging business, subject to obtaining regulatory approval.

## Other Services

During 1998 and prior years, T-Mobil owned and operated Chekker, a mobile trunked radio service intended primarily for intra-company voice transmission. Although the Chekker service was sold to a third party at the beginning of 1999, the service is being continued with the temporary technical support of T-Mobil.

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.

Since 1993, T-Mobil has provided a wide variety of Inmarsat satellite services.

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.

### New technologies and new standards

Deutsche Telekom expects that future mobile communications will rely less on voice traffic than today's mobile services and will routinely support video and data transmission. Today's GSM networks offer maximum transmission rates of 9,600 bits per second. GPRS (General Packet Radio Service), which is to become available soon, will provide much higher transmission rates. T-Mobil also plans to take a leading role in introduction of UMTS (Universal Mobile Telephone System), the next-generation mobile communications standard.

## **Broadband Cable/Broadcasting**

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 broadband cable/broadcasting business area generated revenues of approximately  $\in$ 1.8 billion, or approximately 5.1% of the consolidated revenues of Deutsche Telekom, in 1998. 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

Before the TKG entered into force, Deutsche Telekom had the exclusive right, subject to certain exceptions, to operate cable transmission lines in Germany. As a result, Deutsche Telekom 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, however, Deutsche Telekom has not been engaged in producing 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 March 31, 1999, 17.7 million households, or approximately 46% of the total number of German households, received cable television service from Deutsche Telekom's network. At March 31, 1999, Deutsche Telekom's cable network passed 26.0 million households, or approximately 67% 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:

	At March 31,	At	At December 31,			
	1999	1998	1997	1996		
	(in millions, except percentages)					
Households connected(1)	17.7	17.7	17.3	16.7		
Households passed	26.0	25.9	25.5	24.9		
Total households	38.7	38.7	38.7	37.4		
Penetration(2)	68.2	68.1	67.6	66.9		
Coverage(3)	67.2	67.0	66.0	66.6		

(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, 1998.

	Millions of Households	Percentage of Total
Direct relationship with Deutsche Telekom	4.8	27.2
Subscription to local cable company in which Deutsche Telekom		
owns an equity interest	1.3	7.3
Subscription to other private cable operator, in particular real		
estate management company, owner of building	5.8	32.7
Subscription to professional cable companies with more than		
1,000 subscribers	5.8	32.7

Deutsche Telekom's cable network transmits analog and digital programming. Up to 33 analog television channels are currently available to Deutsche Telekom's cable customers. In 1998, the television companies ARD, DF1, Premiere and ZDF began to feed digital program packages into Deutsche Telekom's broadband cable network. At present, depending on the compression rate, up to 150 digital programming slots are available on 15 channels through Deutsche Telekom's cable network. Households with a cable television connection can receive these programs through a decoder. In October 1998, Deutsche Telekom enlarged the digital TV programming spectrum with a package of seven new foreign-language program offerings. Deutsche Telekom intends to bring other channels, including additional foreign-language channels, into its network.

### 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 noncurrent assets, to a wholly owned subsidiary called Kabel Deutschland GmbH at the turn of the year 1998/1999. Kabel Deutschland GmbH now operates the cable business of Deutsche Telekom. Deutsche Telekom carries Kabel Deutschland GmbH on its books at a value of €3.8 billion. This valuation is based on Kabel Deutschland's long term business plan, which assumes higher revenues and improved margins in the future, which are expected to result, in particular, from the offering of new digital TV services. Until 2001, however, management expects that the cable business will continue to be loss-making. See "First Quarter Results and Outlook". Deutsche Telekom is seeking third party investors for the cable business. Under Deutsche Telekom's current plan, the cable business will be organized into nine regional companies in which third party investors could take controlling stakes, although Deutsche Telekom would also consider selling a stake in the entire business to a single investor. These regional cable companies will be autonomous with respect to their business operations, network-expansion strategies and services portfolios. The regional companies will have a stronger orientation toward business potential at the regional level. Deutsche Telekom would generally aim to retain interests in the regional companies to maintain access to cable television customers. A possible consequence of the sale of significant interests in the broadband cable business to third parties is that they could use the broadband cable network as a network for telecommunications services, particularly fast Internet services and telephony. At present, however, the cable network cannot be used for two-way traffic. A return-channel using the fixed-line telecommunications network is at present required for this purpose. Upgrading the broadband cables in the cable network to allow for two-way traffic would involve considerable investment. See "Network and Technology-Cable Network". You should not assume that plans for bringing in third party investors will succeed.

On February 1, 1999, Deutsche Telekom established a separate wholly-owned subsidiary under the name of MSG MediaServices GmbH, which is expected to provide services to the newly formed regional cable companies, to other cable-network operators and program providers and to cable television customers via its digital platform. This service company is responsible for marketing, customer management and distribution of a package of digital channels offered by a number of program providers.

## **Broadcasting Services**

Deutsche Telekom operates over 7,000 terrestrial broadcasting stations, which provide broadcasting services for public and private television and radio stations. In addition, Deutsche Telekom transmits programming between television studios and broadcasting stations.

In the area of broadcasting, Deutsche Telekom is now focusing on digital technology. Digital technology offers significant advantages in broadcasting, including lower costs, more efficient use of frequencies and better reception. In addition, digital platforms can support a great variety of new services, such as telematics and multimedia services. Deutsche Telekom is seeking to cooperate with other broadcasting companies to establishing digital audio broadcasting (DAB) networks.

In May 1998, Deutsche Telekom joined with Bayerischer Rundfunk and Bayerische Medientechnik GmbH to establish a new company, Bayern Digital Radio GmbH. This company has successfully applied for the license and for the frequencies needed to set up and operate a DAB network in Bavaria. On March 31, 1999, Deutsche Telekom, Südwestdeutscher Rundfunk and Private Medien GmbH decided to establish the new company Digital Radio Südwest GmbH. In February 1999, Deutsche Telekom was assigned frequencies for DAB in the states of Saxony-Anhalt, Thuringia, Saxony and Brandenburg, making them the first regions in which DAB is authorized to be introduced on a commercial basis.

## Tariffs

In addition to a one-time installation charge, Deutsche Telekom charges a monthly subscription fee for broadband cable service. After keeping prices stable for five years and absorbing the cost of the 15% value-added tax levied starting at the beginning of 1996, Deutsche Telekom raised the subscription prices for cable services in November 1997 by an average of 15%. This increase was reviewed by the Regulatory Authority and finally approved in November 1998. Currently, a typical household pays a maximum of  $\in$ 13.36 per month for an individual subscription, including 16% value-added tax at the current rate. In 1998, the average monthly subscription price for all households connected to Deutsche Telekom's network, either directly by Deutsche Telekom or indirectly by other cable operators, was approximately  $\in$ 6.65 including value-added tax. The 1997 rate increase, in conjunction with additional cost-cutting measures, reduced Deutsche Telekom's losses in the broadband cable and broadcasting area significantly in 1998.

In 1998, Deutsche Telekom charged program providers an annual transmission fee per analog channel of approximately €1.5 million to cover the whole Deutsche Telekom cable network. In 1999, Deutsche Telekom raised the price by 50%. This increase was approved by the Regulatory Authority in March 1999. At the same time, the Regulatory Authority ordered changes in the price structure for certain broadcasters (i.e., locally available terrestrial channels). Deutsche Telekom's position is that these changes do not have retroactive application. Preparations for the implementation of these changes in the price structure are currently underway. See "—Regulation—Special Requirements Applicable to Market-Dominating Providers—Pricing".

### 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 1998, the terminal equipment business area generated revenues of  $\in 1.5$  billion (4.2% of the consolidated revenues of Deutsche Telekom in that year), as

compared to  $\in$ 1.6 billion in 1997. Revenues and earnings or losses 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. It also helps Deutsche Telekom ensure that equipment required for new services is available in the marketplace. Financial results in the terminal equipment business area improved significantly in 1998. This was accomplished through internal cost reductions, streamlining of the product portfolio — as Deutsche Telekom discontinued operations in unattractive market segments — and development of new products. Losses before taxes in the terminal equipment group business area in 1998 were €114 million.

In 1998, Deutsche Telekom purchased approximately 89% of its terminal equipment, including accessories, from its ten most important national and international suppliers. The total value of all orders was  $\in 0.6$  billion. Siemens AG, with a share of approximately 50% 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 the 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.

Deutsche Telekom is focusing on the introduction of innovative telecommunications equipment, such as the new product lines T-Concept and T-Easy. These new products have a special function key, the "T-key", that provides easy access to important Deutsche Telekom service numbers, such as numbers for placing service orders, obtaining after-sales support and contacting customer representatives. During 1998, Deutsche Telekom also introduced the T-View 100PC, a PC-based virtual videophone.

# Special Value Added Services

Through its special 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 1998, this business area generated revenue of  $\in 2.1$  billion, or 5.7% of the consolidated net revenue of Deutsche Telekom in that year. This represents an increase of 2.5% in comparison with the previous year.

The following table sets forth statistical information relating to special value-added services.

	Year ended December 31,		Year ended December 31,		
	1998	1997	1996	1998/1997	1997/1996
Minutes from public telephones (in millions)(1) Minutes from toll free numbers and information provider	2,664	4,659	—	(42.8)	—
services (in millions)(1)	1,466	1,267	—	15.7	—
Minutes from directory inquiries services (in millions)(1) $\dots$	317	511	$\equiv$	(38.0)	_
Total minutes (in millions)(1)	4,447	6,437	_	(30.1)	

(1) Data on minutes not available for 1996. Minutes are estimates.

Deutsche Telekom offers toll-free numbers to its customers. During 1998, the number of calls made to service phone numbers provided by Deutsche Telekom increased by 28%. Deutsche Telekom believes that this increase was due to a number of new services that it introduced during 1998 and to intensified marketing.

Deutsche Telekom is Germany's largest call center operator, with over 9,000 operators at a total of over 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. Deutsche Telekom's directory assistance service handles up to 1.5 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 from 568 million in 1997 to 406 million in 1998. In fall 1998, Deutsche Telekom's subsidiary DeTeMedien published a directory on CD-ROM, "Telefonbuch für Deutschland Map & Route", with the telephone numbers of more than 33 million telephone subscribers, a digital map of Germany and special routing functions.

The special value-added services business area is also responsible for marketing telephone cards, which are prepaid cards that store data on an imbedded computer chip. To keep pace with ever-faster technological advances in computer chip technology, Deutsche Telekom in 1998 began limiting the validity of its telephone cards to three years. In early November 1998, Deutsche Telekom produced its 500 millionth telephone card, illustrating the widespread acceptance and use of telephone cards in Germany.

As of March 31, 1999, Deutsche Telekom operated over 150,000 payphones, representing a penetration rate of 1.85 payphones for every 1,000 inhabitants. Approximately 64% of these payphones were card operated, and the remainder were coin operated. In 1998, Deutsche Telekom continued its efforts to improve performance in the unprofitable area of payphones and other public communications. One important new initiative in this regard was the introduction of the first of a new generation of card telephones. These phones have added "intelligence" that both enhances convenience for Deutsche Telekom's customers and lowers operational costs. Deutsche Telekom also launched a field test in 1998 to test new multi-functional telecommunications terminals that support telephony, fax and data communications, picture telephony and Internet access. Another important element in Deutsche Telekom's consolidation strategy has been to optimize placement of public telephones, in order to ensure that the public phone system both remains cost-effective and provides nationwide coverage. Deutsche Telekom plans to continue its site-optimization program in 1999.

### **Other Services**

Deutsche Telekom's "other services" area comprises principally multimedia activities and, to a lesser extent, Deutsche Telekom's billing of competitors' revenues, support services and ancillary activities performed by Deutsche Telekom. This business area had revenues of €1.3 billion in 1998, representing 3.5% of the consolidated revenue of Deutsche Telekom in that year. See "Management's Discussion of Financial Condition and Results of Operations—Results of Operations—Net Revenues—Other Services."

## Multimedia

Deutsche Telekom offers nationwide Internet access for residential customers and for small and medium size business customers under the T-Online brand name, as well as multimedia applications and services for business customers under the T-Mart brand name.

## **T-Online**

At March 31, 1999, T-Online had approximately 3.0 million customers. The T-Online service, which is operated, developed and marketed by Deutsche Telekom's wholly owned subsidiary DeTeOnline Service GmbH, is Europe's leading online-service and Internet-service provider. Through T-Online, Deutsche Telekom offers consumers low-cost, high-performance Internet access. Deutsche Telekom plans to tailor T-Online to the needs of small and medium-sized businesses as well – for example, by offering such customers web-hosting service, which allow customers to have a website without having their own service.

In addition to Internet access, T-Online offers customers access to some 6,000 exclusive online services. The available applications cover a spectrum that includes database research, information and entertainment, and online banking. As of the end of 1998, over 4 million bank accounts, representing some 1,500 different banks, were being managed via T-Online.

Deutsche Telekom intends to add portal site functions to the T-Online home page that would facilitate Internet navigation by customers. For example, Deutsche Telekom has entered into a joint venture with Infoseek Corporation, among others, to develop a German Internet search engine, which would simplify the task of searching for information on the Internet for T-Online customers. Deutsche Telekom is also introducing a shopping portal through which customers have access to electronic commerce. Deutsche Telekom believes that such functions would make the T-Online home page more attractive to customers and therefore more attractive to advertisers, thereby making an additional source of revenue available to Deutsche Telekom.

Use of T-Online has continued to grow rapidly. In 1998, subscribers connected to the service a total of some 840 million times, or nearly 70 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. According to management estimates, T-Online's market share is approximately 60 percent. Deutsche Telekom intends to offer innovative services, such as easier e-mail access and homepages for business customers, with the aim of increasing the number of subscribers to T-Online. In addition, T-Online has decided to significantly reduce its prices for Internet access starting in April 1999. Deutsche Telekom now offers Internet access for DM 0.06 per minute (DM 0.03 for local call charges and DM 0.03 for Internet access charges).

## T-Mart

Under the T-Mart brand name, Deutsche Telekom offers a comprehensive range of multimedia applications and services for business customers, including comprehensive 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. The new brand covers the Internet value-added services, originally introduced in 1997 under the T-Intra brand name, as well as applications and services for electronic business and electronic commerce, and intranet and extranet solutions.

Deutsche Telekom aims to position itself as a one-stop-shopping provider that is able to provide all necessary services, including advising, design, development, installation, access provision and server operation, to the customer.

### **Network Security**

Recognizing that the commercial success of an Internet services provider depends on network security, Deutsche Telekom aims to offer convenient solutions that provide a maximum of security for payment transactions and sensitive data transmissions in the Internet. To this end, Deutsche Telekom is introducing electronic payment systems and has developed digital signature functions that meet the standards imposed by the German Digital Signature Act.

Deutsche Telekom also plans to offer a certification service, based on technology owned by GTE Internetworking, that is designed to enhance Internet payment security.

### International Investments and Joint Ventures

To take advantage of the globalization of telecommunications markets, Deutsche Telekom is pursuing a strategy of internationalizing its operations.

From 1993 through 1998, Deutsche Telekom invested a total of €4.96 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 a return on investment and the prospects for playing a guiding role in the development of the enterprise.

Our goal is to become a truly pan-European full-service telecommunications operator. To pursue our goal, we announced in April 1999 an agreement with Telecom Italia to combine our businesses in a "merger of equals" transaction. Under the terms of this agreement, a newly formed German company ("Newco") would have made exchange offers to the shareholders of Deutsche Telekom and Telecom Italia. If we assume that all shareholders had accepted, Deutsche Telekom shareholders would have held 56% and Telecom Italia shareholders 44% of Newco. At the time our transaction was announced, Telecom Italia was also the subject of an unsolicited bid by Olivetti. On May 22, 1999, Olivetti announced that it would accept the shares of Telecom Italia, representing approximately 51% of its ordinary shares, tendered to it in response to Olivetti's unsolicited tender offer. While Deutsche Telekom remains convinced of the merits of the business combination, it recognizes that it is unlikely to be consummated in its current form. Our commitment remains to become a pan-European full service telecommunications provider. Following the announcement of the proposed business combination transaction, France Telecom, Enel and WIND separately initiated legal proceedings against Deutsche Telekom in opposition to the proposed transaction. We are unable at this time to determine what effect the results of the Olivetti tender offer will have on these legal proceedings and on our relationships with these parties generally.

## **Cooperation with France Telecom**

On December 1, 1998, France Telecom purchased 54,870,000 Deutsche Telekom shares from KfW, representing 2% of the issued share capital of Deutsche Telekom, at a price of  $\in$ 22.74 per share, and Deutsche Telekom purchased 20,492,292 France Telecom shares from the French State, representing 2% of the issued share capital of France Telekom, at a price of FF 390.00 per share ( $\in$ 59.46 per share at the date of purchase). This cross-shareholding was intended to strengthen the cooperation between Deutsche Telekom and France Telecom. Deutsche Telekom agreed not to sell any of these shares until after December 31, 2001, or in certain specified cases, until after December 31, 1999. Sales after the end of the applicable lock-up period continue to be subject to some restrictions. France Telecom also agreed with Deutsche Telekom to similar limitations and conditions with respect to the Deutsche Telekom shares that it purchased. France Telecom entered into a separate agreement with 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 such shares between January 1, 2000 and June 30, 2001 only under certain

circumstances (depending in part on whether KfW shall then have notified France Telecom of an intention to sell Deutsche Telekom shares owned by KfW). France Telecom has the right to purchase the shares sold to Deutsche Telekom under specified conditions, including if Deutsche Telekom enters into certain forms of strategic alliance with a particular class of telecommunications companies. The purchase price is the higher of the arithmetic mean of the market price for the shares over a two-month period or the historic purchase price. Deutsche Telekom has analogous rights with respect to the Deutsche Telekom shares held by France Telecom. The cross-shareholding between Deutsche Telekom and France Telecom followed the election of Dr. Ron Sommer, Chairman of the Management Board of Deutsche Telekom, to France Telecom's Administrative Board in May 1998 and of Mr. Michel Bon, the Chairman of the Administrative Board of France Telecom, to Deutsche Telekom's Supervisory Board in June 1998. On November 19, 1998, Deutsche Telekom and France Telecom notified the European Commission of their proposed cooperation and the membership of the chairman of each company on the relevant board of the other company.

The companies also agreed to establish a cooperation program and, in this regard, signed a cooperation agreement on November 10, 1998. The objective of this agreement, which is subject to regulatory approval, is to create synergies between the two companies in areas such as research and development, multimedia, information systems and telephone cards. As a component of their cooperation, France Telecom and Deutsche Telekom decided to build, together with their European partners and in collaboration with Global One, a European backbone network linking major cities and business centers.

When Deutsche Telekom's proposed business combination with Telecom Italia was initially announced, France Telecom publicly expressed its strong opposition to the combination, stating that it believed the combination violated Deutsche Telekom's undertakings with France Telecom and indicating that it would undertake whatever action is appropriate to protect its rights and the interests of its shareholders. At the same time, France Telecom stated that the international position of France Telecom is "not significantly affected" by the proposed transaction. According to press reports, the Chairman of France Telecom's Administrative Board stated that, if the business combination was pursued, France Telecom would terminate its relationship with Deutsche Telekom and sell its 2% interest in Deutsche Telekom's shares. As noted above, France Telecom separately agreed with KfW that it would not dispose of its 2% interest before December 31, 1999. 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 recover damages from Deutsche Telekom in an unspecified amount, 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. France Telecom has stated publicly that its preliminary estimate of these damages is several billion Euros. France Telecom also sent a letter purportedly terminating the cooperation agreement and the cross-shareholding agreements, which if effective would permit France Telecom to sell its Deutsche Telekom shares following the expiration of the KfW lock-up. In addition, France Telecom has commenced an action in Italy claiming that Deutsche Telekom breached certain noncompetition provisions contained in the WIND shareholders agreement, and in connection therewith France Telecom is seeking injunctive relief relating to the proposed business combination of Deutsche Telekom and Telecom Italia.

It is Deutsche Telekom's position that it has not violated its agreements with France Telecom. It intends to contest the proceedings commenced by France Telecom vigorously.

The long-term development of Deutsche Telekom's relationship with France Telecom is unclear at this time. You should assume that the relationship between Deutsche Telekom and France Telecom

going forward may be materially different from what it has been. You should also assume that Deutsche Telekom's relationship with France Telecom in Global One and in other cooperative undertakings (such as WIND, MetroHoldings and Multilink) may be adversely affected.

### Global One

In January 1996, Deutsche Telekom, France Telecom and Sprint formed Global One, which commenced operations in February 1996. Deutsche Telekom and France Telecom hold their interests in Global One through Atlas Telecommunications S.A. ("Atlas"), a 50/50 joint venture of the two companies. As of March 31, 1999, Deutsche Telekom had made equity investments in Global One through Atlas totalling  $\in 0.6$  billion.

Global One's operational activities are divided into two primary groups in which Atlas and Sprint hold different equity stakes: (1) Global One Europe, which covers Europe excluding Germany, France and Russia, and (2) Global One World, which covers countries outside Europe and the United States (but including Russia). In addition, Global One plans to establish an integrated backbone network to facilitate the provision of its services. Atlas holds a 66%% equity interest in Global One Europe and a 50% equity interest in both Global One World and the company operating the backbone network. The remaining equity interests in each group are held by Sprint.

Global One offers customers in the international market—such as companies and operators of other telecommunications networks and services—a comprehensive portfolio of telecommunications services. One of these services is Global ATM. Global One uses this service, which was introduced in October 1998, to implement international broadband communications solutions for its customers. Global One now operates over 1,400 nodes, in over 65 countries. At the end of 1998, Global One had over 3,800 employees.

In its third year of operations, Global One continued to solidify its global market position and generated revenue of approximately US\$1.2 billion. Global One continues, however, to be loss-making, having produced a net loss after taxes of US\$798 million for 1998. As a result, the partners initiated a program in 1998 to refocus and streamline the company, in order to improve its profitability. To lower its network costs, Global One will accelerate the deployment of its ATM network in 13 countries, purchase transport capacities and obtain traffic termination and access on competitive conditions. To achieve its objectives, Global One recently obtained voice and data licenses in a dozen countries. A restructuring of the business to implement this plan has begun and is expected to be completed by the end of 1999. In support of Global One, on April 22, 1999, Deutsche Telekom, France Telecom and Sprint announced agreement on a US\$700 million capital increase for Global One to be funded by the Global One shareholders. On the basis of current conditions and arrangements, Deutsche Telekom expects Global One to break even in 2001.

Under the Global One joint venture agreement, almost all significant decisions with respect to Global One, including decisions as to the budget, financial contributions and overall business strategy, are to be made unanimously by the three partners. In addition, Deutsche Telekom and France Telecom have agreed to devote sufficient resources to Atlas to enable it to comply with its obligations to Global One. Under certain circumstances, a default by one of the parties in the performance of its obligations under the Global One joint venture agreement gives rise to certain rights on the part of the non-defaulting party or parties to purchase the defaulting party's interest in Global One, generally at below fair market value.

Global One has its own sales force to market and distribute its products and services outside Germany, France and the United States. Each of the Global One partners markets and distributes Global One products and services in its respective home market. In addition, each of the Global One partners provides services to and purchases services from Global One, generally on a most favored customer basis. Subject to certain exceptions, the Global One partners are prohibited from providing services internationally that compete with those offered by Global One.

On March 2, 1999, Sprint notified Atlas that a deadlock exists with regard to the approval of Global One's 1999 budget and claimed to have the right to declare an "impasse" after May 15, 1999 if the deadlock remained unresolved. With respect to Sprint's deadlock notice, Deutsche Telekom and France Telecom notified Sprint that they reserved all of their rights under the Global One joint venture agreement, including their rights to dispute Sprint's declaration of a deadlock. If a deadlock exists under the Global One joint venture agreement and an impasse were to be declared, buy/sell provisions under the Global One joint venture agreement may be triggered that could result in the termination of the Global One joint venture. If the Global One joint venture were terminated, certain special rights of Deutsche Telekom and France Telecom relating to their holdings of Sprint's Class A common stock would be adversely affected. The final impact on Atlas, Global One and the relationships among Deutsche Telekom, France Telecom and Sprint of Deutsche Telekom's proposed business combination with Telecom Italia remains to be determined. For its part, Deutsche Telekom remains committed to the Global One joint venture. You should recognize, however, that the disputes with France Telecom may have a detrimental effect on the Global One joint venture. This could in turn lead to a restructuring of the Global One joint venture (whether as a result of the deadlock relating to Global One's 1999 budget or otherwise).

### Investment in Sprint Corporation

In connection with the formation of Global One, in early 1996, Deutsche Telekom invested approximately US\$1.8 billion ( $\in$ 1.3 billion on the date of purchase) in shares of Sprint Class A Common Stock representing approximately 10% of Sprint's outstanding voting stock. France Telecom concurrently purchased an equal number of such shares. The Class A Common Stock has all of the rights given to Sprint's common stock, as well as certain special rights. For example, the holders of the Class A Common Stock generally have the right to proportional representation on Sprint's board of directors and are generally entitled to elect a minimum of two directors as long as they hold in the aggregate not less than 10% of Sprint's voting power. Deutsche Telekom and France Telecom also have certain rights, including anti-dilution protections, and obligations pursuant to contractual arrangements with Sprint.

In 1998, Sprint restructured its mobile telecommunications holdings and modified its capital structure. In connection with that recapitalization, in November 1998 Deutsche Telekom and France Telecom purchased enough shares of a newly issued class of Sprint common stock to maintain their overall percentage voting power over Sprint common stock. In the restructuring and recapitalization, Sprint created two new classes of common stock, FON and PCS, which separately track the financial performance of, respectively, Sprint's wireline and wireless businesses. Deutsche Telekom and France Telecom retained their Class A Common Stock, which continues to represent interests in both businesses. In connection with Sprint's subsequent public offering of PCS common stock in February 1999, Deutsche Telekom and France Telecom purchased additional PCS shares to ensure that their current overall voting power was not diluted. Deutsche Telekom's additional investment in Sprint from November 1998 through March 31, 1999 totalled approximately US\$84 million. Shares of low-voting PCS common stock and PCS preferred stock convert into regular-voting PCS shares upon the occurrence of certain transfers and other events. In connection with any such conversions, Sprint's pending issuance of PCS stock to purchase remaining interests in its mobile business and future stock issuances by Sprint, Deutsche Telekom and France Telecom will be required to invest additional amounts to maintain their current aggregate voting percentage.

At the time of their initial investment in Sprint, Deutsche Telekom and France Telecom had agreed not to dispose of their interests in Sprint for five years following the initial purchase. Thereafter, transfers were subject to certain restrictions, including rights of first offer and refusal in favor of Sprint. In addition, Deutsche Telekom and France Telecom were subject to a standstill agreement, which generally limited their combined interests to 20% of Sprint's voting power for 15 years and 30% thereafter. Under amendments to those agreements entered into in connection with the restructuring and recapitalization, the overall limitations continue to apply, but the limitations are more flexible with respect to the relative percentages of FON and PCS common stock ownership by Deutsche Telekom and France Telecom and with respect to the transferability of certain shares of PCS common stock acquired in connection with the Sprint recapitalization. The prohibition against Deutsche Telekom and France Telecom participating in acquisition transactions involving Sprint without Sprint's consent and other standstill provisions remain generally unchanged.

In the event of a change in control of Sprint (i.e., if Sprint decides not to oppose a third-party purchase offer for more than 35% of its voting power or otherwise decides to sell control of itself, or there is a change in the composition of the majority of Sprint's board of directors as a result of a proxy contest or the election of directors by the holders of preferred shares), Deutsche Telekom and France Telecom will obtain greater board representation and voting control over the companies comprising the Global One joint venture. Upon the occurrence of a change in control as described above, Sprint may also offer to sell all of its Global One interests to Deutsche Telekom and France Telecom at their appraised values, which shall be determined promptly after such offer by an investment bank of international standing jointly selected by the parties. If Deutsche Telekom and France Telecom decline to accept such offer, their greater representation and control of Global One will cease. Further, under certain conditions, Sprint may for a two-year period commencing on the fifth anniversary of any such change of control require Deutsche Telekom and France Telecom to purchase its Global One interests at their appraised value.

Some aspects of the arrangements with Sprint require Deutsche Telekom and France Telecom to exercise their rights jointly. For a discussion of recent developments potentially affecting Deutsche Telekom's investment in Sprint, see "—Global One" above.

## Sprint- and Global One-Related Regulatory Approvals

The Antitrust Division of the U.S. Department of Justice entered into a consent decree with Sprint and Global One which, subject to certain restrictions and conditions, removed any U.S. antitrust impediment to the formation of the Global One joint venture and Deutsche Telekom's investment in Sprint. The U.S. Federal Communications Commission effectively approved Global One and Deutsche Telekom's investment in Sprint by finding them in the public interest and issued a declaratory ruling and order requiring, among other things, a fair and transparent interconnection regime. The FCC's ruling also is subject to certain terms and conditions. The European Commission granted Atlas and Global One individual exemptions pursuant to Article 85 of the Treaty of Rome and Article 53 of the European Economic Area Agreement. The exemptions granted by the European Commission are limited to an initial period of five years for Atlas and seven years for Global One measured from December 1, 1996. The Commission's approval is also subject to certain terms and conditions designed to promote competition in the relevant markets. The German Federal Cartel Office (Bundeskartellamt) approved the Atlas and Global One joint ventures on the basis of the decision of the European Commission. Legal proceedings have been brought concerning the offer and the sale of Global One telecommunications services by Deutsche Telekom and Global One Deutschland GmbH (formerly "Atlas Deutschland Telekommunikationsdienste GmbH") in Germany. See "Legal Proceedings".

## Other International Investments and Joint Ventures

Deutsche Telekom has made additional significant investments in selected full-service telecommunications providers, long distance operators and mobile telephone operators outside Germany.

**MATÁV.** Deutsche Telekom and Ameritech Corporation ("Ameritech") jointly hold a 59.6% 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%. In 1998, MATÁV had revenues of HUF 318.1 billion (€1.3 billion), which represented an increase in HUF revenues of 25.2% over 1997.

In 1998, MATÁV continued to expand and modernize Hungary's telecommunications infrastructure. By the end of 1998, 75.7% of MATÁV's network had been digitized, up from 70% at the end of 1997. In the area of mobile communications, Westel 900, a fully consolidated subsidiary of MATÁV, achieved a 58% share of the GSM market in Hungary, with approximately 547,000 customers at year-end 1998, up from approximately 368,000 at year-end 1997.

Deutsche Telekom and Ameritech initially acquired their interests in MATÁV from the Hungarian state. The acquisition was made in two tranches: a 30.1% stake in MATÁV was acquired in 1993 for US\$875 million (including payment of a concession fee) and an additional 37.2% stake was acquired for US\$852 million in 1995. As a result of MATÁV's initial public offering in November 1997, in which approximately 27% of its stock was sold by its shareholders to retail and institutional investors, the MagyarCom stake in MATÁV was reduced from approximately 67.4% to its current level. MATÁV currently has outstanding 1,037,281,600 common shares and a single "golden share", which is held by the Hungarian Ministry for Transport, Telecommunications, and Water Management.

Ameritech has an option to put to Deutsche Telekom up to 100% 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% to 59.6%. 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, 1998, the exercise price would have been approximately  $\leq$ 1.6 billion. See note 33 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 Hungarian Privatization Agency, which holds a 5.75% stake in MATÁV, retains significant influence over its activities and is required to approve certain management decisions. The Hungarian Privatization Agency has announced that it plans to sell its entire stake in MATÁV this year, although the Republic of Hungary will continue to hold its "golden share". The MagyarCom shares held by Deutsche Telekom and Ameritech and the MATÁV shares held by MagyarCom are subject to substantial transfer restrictions.

**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% of WIND, with Enel owning the remaining 51%. Deutsche Telekom's investment in WIND through December 31, 1998 was approximately €76 million. Deutsche Telekom and France Telecom are granted substantial minority rights under the joint venture agreements.

WIND commenced an action against Deutsche Telekom in Italy in May 1999 alleging unfair competition under the WIND shareholders agreement based on the proposed business combination of Deutsche Telekom and Telecom Italia, and in connection therewith WIND is seeking certain injunctive relief relating to the proposed combination. Enel also commenced an action in Italy in May 1999 raising claims under the WIND shareholders agreement based on the proposed combination of Deutsche Telekom and Telecom Italia. These actions are in addition to the action commenced by France Telecom. It is Deutsche Telekom's position that it has not violated the WIND agreements and intends

to defend vigorously any actions relating to WIND. It is unclear what the further effects of the results of the Olivetti tender offer on the WIND-related legal proceedings will be.

**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% interest and Energis owns a 50% interest. DTFT Ltd. is owned on a 50/50 basis by Deutsche Telekom and France Telecom. As of March 8, 1999, Deutsche Telekom had invested approximately  $\in$ 1.5 million in MetroHoldings through DTFT Ltd. MetroHoldings is currently building new local metropolitan area telecommunication networks in Britain's principal cities, beginning in London, Birmingham and Manchester, 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  $\in$ 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.

*max.mobil.* In early 1999, Deutsche Telekom, acting through T-Mobil, entered into share purchase agreements with several other shareholders of max.mobil. to acquire their shares and so increase its shareholding in max.mobil. Telekommunikation Service GmbH ("max.mobil."), the second largest Austrian mobile telecommunications company, from 25% to 71%. The consummation of this transaction was approved by the Austrian regulatory authority on April 13, 1999 and by the European Commission on April 22, 1999. Through May 25, 1999, Deutsche Telekom has invested a total of 9.9 billion Austrian schillings ( $\in$ 720 million at the dates of purchase) in the equity shares of max.mobil. In Austria, max.mobil. provides nationwide mobile telephony service and plans have been announced for max.mobil. to enter the fixed line telephony and on line businesses. At year-end 1998, max.mobil. had approximately 790,000 customers, representing a share of approximately 38% in the Austrian GSM telecommunications market. In 1998, max.mobil. generated revenues of 4.5 billion Austrian schillings ( $\in$ 329 million) as compared to 1.1 billion Austrian schillings ( $\in$ 81 million) in 1997.

**Mobile Investments in Eastern Europe.** Deutsche Telekom is well placed in the dynamic European mobile communications market as a result of numerous investments in mobile telecommunications companies outside Germany. For example, in Poland, Deutsche Telekom's affiliated company Polska Telefonia Cyfrowa (PTC) achieved a share of over 50% of the GSM mobile communications market at year-end 1998, with approximately 780,700 customers. PTC's revenue grew by 149% to €414 million in 1998. Deutsche Telekom has a 22.50% stake in PTC. Deutsche Telekom has a 41% stake in the Czech mobile communications network operator RADIOMOBIL. This affiliated company generated revenue of over €183 million in 1998 and increased its customer base to 373,000 by the end of that year. Deutsche Telekom also holds an approximate 46% equity interest in CSJC Mobile TeleSystems gAG ("MTS"), a Russian mobile telephone company. MTS had approximately 141,000 customers at year-end 1998. In addition, Deutsche Telekom holds smaller investments in other mobile telecommunications companies.

**Satelindo.** In April 1995, Deutsche Telekom acquired, through T-Mobil, a 25% stake in Satelindo, an Indonesian mobile and international telecommunications operator, for total consideration of US\$676 million. In November 1998, T-Mobil transferred its stake in Satelindo to Deutsche Telekom AG. The other interests in Satelindo are held by a private investor group (45%), the state-owned domestic operator PT Telekomunikasi (22.5%) and PT Indosat (7.5%). Deutsche Telekom has the right to nominate two of the six members of the board of directors of Satelindo. Certain decisions, including capital increases or a transfer of shares by Satelindo's shareholders, require the affirmative vote of 85% of the voting shares.

**TRI.** In October 1996, Deutsche Telekom purchased an approximate 21% interest in the Malaysian telecommunications provider Technology Resources Industries Bhd. ("TRI"), 10% by way of subscription of new shares and the remaining portion through purchase from existing shareholders. Deutsche Telekom purchased slightly more than half of its interest from existing shareholders and the remaining portion pursuant to a capital increase. The total purchase price was approximately 1.5 billion ringgit (€460 million at the date of purchase).

**Islacom.** In October 1996, Deutsche Telekom acquired a 10% interest in Isla Communications Co., Inc. ("Islacom"), a Philippine telecommunications company, and a 40% interest in Asiacom Philippines, Inc., the majority shareholder of Islacom, for an aggregate purchase price of approximately US\$243 million payable in three installments: the first installment was paid in October 1996, the second was paid in April 1997 and the third installment will be paid upon demand.

For further information relating to Deutsche Telekom's investments in Islacom, Satelindo and TRI, see "Management's Discussion of Financial Condition and Results of Operations—Results of Operations—Income (Loss) from Financial Activities."

# Network and Technology

Deutsche Telekom has invested over €76.7 billion in its telecommunications and cable networks since 1990, including €2.7 billion in 1998. 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% digital local switching and 100% digital transmission. Deutsche Telekom has introduced asynchronous transfer mode (ATM) technology and wavelength division multiplexing (WDM) technology on the basis of its advanced network. Deutsche Telekom's investments in network infrastructure were 41% lower in 1998 than in 1997. This decrease resulted from the completion at the end of 1997 of two cost-intensive network development programs—the development program for eastern Germany, in which Deutsche Telekom invested a total of approximately €25 billion, and the digitization of the T-Net, in which Deutsche Telekom invested approximately €6.1 billion. 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 54,200 at year end 1998 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  $\in 0.8$  billion in the mobile business area for 1999, including approximately  $\in 0.6$  billion for improvements to fixed assets related 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 March 31, 1999, Deutsche Telekom's domestic network consisted of 36 million standard telephone lines in service and 10.9 million ISDN voice and data channels and reached virtually all German homes, as well as the vast majority of German businesses.

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

	Year ended December 31,		
	1996	1997	1998
Blocking rate on the public switched telephone network/			
ISDN(1)	1%	0.9%	1.1%

 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 in 1998 resulted primarily from atypical traffic generated by competitors that do not have their own networks and have relatively few points of interconnection. The network's reliability is further enhanced by efficient customer service. See "—Marketing and Customer Care Initiatives."

*Transmission Network.* As of December 31, 1998, the transmission network linking Deutsche Telekom's local networks consisted of approximately 157,400 kilometers of fiber optic cable.

As of March 31, 1999, more than 70% 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 12,000 kilometers in length and providing transmission rates of 2.4 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 submarine cables worldwide. In addition to investments in a number of smaller cables, Deutsche Telekom has investments in the major submarine cables AC-1, TAT-10, TAT-12/13, UK-G6 and SEA-ME-WE3. Deutsche Telekom is investing US\$120 million over a three year period in the planned TAT-14 submarine cable, which is expected to begin operating by the end of the year 2000 with a total transmission capacity of 640 Gbit/sec.

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

Deutsche Telekom plans to serve its international customers by seamlessly linking the ITN-D (its transport network for international traffic in Germany), Deutsche Telekom's High Performance Net and its 36 national City-Netz optical fiber networks with a European backbone network. Deutsche Telekom plans to have this network link some 40 points of presence, in 16 countries, over a total length of 20,000 kilometers by late 2000. To provide its customers with access to major international economic

centers, Deutsche Telekom also intends to link the European backbone seamlessly with the new City-Netz structures abroad which it is building together with its international partners.

Deutsche Telekom has also decided, together with its alliance partners, to harmonize the ATM platform technology within the global alliance. This platform is expected to be fully in place by mid-1999.

#### 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-Net 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/Systems Solutions."

### Internet Network

The extremely rapid growth of Internet communications has created enormous challenges for the international telecommunications industry. In 1998, Deutsche Telekom continued to expand its telecommunications networks for transport of national and international Internet traffic. From the end of 1997 to the end of 1998, Deutsche Telekom increased the number of dial-in ports in its national platform by a total of 160%. The transmission rate in the core network was increased from 34 Mbit/s to 155 Mbit/s, which is equivalent to about 10,000 DIN-A4 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 1998 for a further increase of transmission capacity to 622 Mbit/s—and, in core areas, to as much as 2.48 Gbit/s. Both capacity expansions will involve use of state-of-the-art wave division multiplexing technology, which was successfully tested in the network in 1998 and has already been introduced for some applications.

In 1998, Deutsche Telekom added 155 Mbit/s of transmission capacity—almost doubling the previous capacity level—to the U.S., which plays a particularly important role in Internet communications. Deutsche Telekom accomplished this result using its own capacities in the AC1 submarine cable system. A further 155 Mbit/s expansion is planned in the short term; if necessary, Deutsche Telekom will add as much as 622 Mbit/s by mid-1999.

# ADSL

Deutsche Telekom embarked on an ambitious ADSL technology (Asymmetrical Digital Subscriber Line) expansion program in 1998 that is aimed at giving customers broadband access to the global information superhighway. 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. ADSL thus makes fast Internet access possible.

# Mobile Telecommunications Network

Deutsche Telekom operates two national mobile telephony networks. At March 31, 1999, Deutsche Telekom's digital mobile network, T-D1, consisted of 16,000 base stations, 600 base station controllers and 45 switches and was capable of reaching an area comprising 98% of Germany and 99.5% of the population of Germany. Also at March 31, 1999, Deutsche Telekom's analog mobile network, T-C-Tel, consisted of 2,120 base stations and 32 switches and was capable of reaching an area comprising 98% of Germany and 99.8% of the population of Germany. The T-D1 network operates in the frequency bands ranging from 890 to 915 MHz and from 935 to 960 MHz, while the T-C-Tel network operates in the frequency bands ranging from 450 to 456 MHz and from 460 to 466 MHz.

Due to the increasing popularity of digital mobile communications in Germany, Deutsche Telekom expects to spend approximately €0.6 billion on the expansion and improvement of its digital mobile network during 1999.

Deutsche Telekom has conducted significant research and development efforts relating to UMTS (Universal Mobile Telephone 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  $\in$ 1.5 billion would be required to upgrade the network from 450 megahertz to 862 megahertz and to make the cable network bidirectional from the head end, where program signals are fed into the cable network, to the customer connection point for 70% of its customers, i.e., capable of being used to transmit more TV channels, transmit telephone calls and provide multimedia services and Internet traffic fast to those customers. Deutsche Telekom also believes that an additional amount of approximately  $\in$ 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 has approximately 9,000 employees working in the area of information technology. Deutsche Telekom made expenditures of approximately €0.7 billion for software, IT operations and service in 1998 and expects to spend approximately the same amount in 1999. Deutsche Telekom considers the continuing development of these systems to be a key component in the improvement of customer care and billing applications. Deutsche Telekom believes that, during 1998, it made significant progress in providing comprehensive telematics services—the combination of telecommunications and information technology—for its customers.

In 1998, Deutsche Telekom continued the consolidation of its information technology area when it combined 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 Deutsche Telekom Computer

Service Management GmbH (DeTeCSM). DeTeCSM provides IT services to the Deutsche Telekom group and- in cooperation with Deutsche Telekom's sales units, especially DeTeSystem—implements information and telecommunications solutions for German and global customers. Deutsche Telekom is continuing this consolidation process in 1999 by combining software development activities in T-Nova Deutsche Telekom Innovationsgesellschaft mbH. In addition, the information management function will be set up at the headquarters of the Deutsche Telekom group in 1999 as a central unit for IT strategy and planning.

#### Marketing and Customer Care Initiatives

During 1998, Deutsche Telekom introduced new measures to attract and retain customers and continued its program to sharpen its focus on the customer. All of these activities are aimed at optimizing customer service and at fostering long-term customer loyalty in a highly competitive market. One important measure, launched in 1998, is the consolidation of Deutsche Telekom's residential customer and business customer branch offices. This move is designed to improve the effectiveness and autonomy of the company's field organization, primarily by combining and strengthening sales and service units. As part of the reorganization, the branch offices in each region, for business customers and for residential customers, will be placed under a common regional management. This is expected to improve the branch offices' customer service and overall operations and to enhance their 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 plans to create 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

Deutsche Telekom's 578 "T-Punkt" shops throughout Germany (as of the end of 1998) are one of its 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.

Deutsche Telekom also has a broad range of sales partners under contract with a total of some 9,000 sales outlets. These sales partners sell products and services of Deutsche Telekom, in addition to their own lines of products and services. Deutsche Telekom plans to enlarge this sales network in 1999 by signing additional sales cooperation agreements with leading retailers.

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. In August 1997, Deutsche Telekom introduced on a pilot project basis an online sales channel in response to the growing importance of the Internet marketplace. This pilot project was developed further in 1998.

# **T-Service**

"T-Service" with its staff of over 25,000 persons, 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 1998, Deutsche Telekom succeeded in installing new telephone lines when promised in over 99% of all cases.

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 1998. 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 1998, 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. For example, through its new "Partnership Management" program, Deutsche Telekom provides information and support services for management consultants, engineering offices, telecommunications and IT consultants and systems houses. Deutsche Telekom has also commenced offering 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 1998 was 3,492, an increase of nearly 25% as compared to 1997.

#### **Research and Development**

Deutsche Telekom views research and development as an important tool for competing effectively in a liberalized telecommunications market and has committed significant resources to research and development activities. Deutsche Telekom focuses its research and development activities on the development of products, services and applications requested by the business units of Deutsche Telekom, on improving the efficiency and quality of the network infrastructure and on improving administrative software for internal business processes at Deutsche Telekom. As of March 31, 1999, Deutsche Telekom had approximately 4,400 employees dedicated to research and development activities. Deutsche Telekom's expenditures on research and development in 1998 amounted to approximately €665 million, as compared to approximately €614 million in 1997. Approximately 40% of Deutsche Telekom's 1998 research and development expenditures were devoted to software development. Deutsche Telekom has a variety of patents and licenses. No single patent or license is material to its business.

Deutsche Telekom has been a key member of consortia that have developed technologies and applications that serve as industry-wide standards, including GSM, ISDN, and ATM. Current research and development projects include transmission technology (such as wavelength multiplexing technology and ATM and IP technology), network management systems and intelligent networks, and multimedia services. In addition, Deutsche Telekom has established a cooperation arrangement with France Telecom in all major research areas. To take advantage of the dynamic evolution in the United States in areas such as Internet technologies, multimedia services, data communications and mobile communications services, Deutsche Telekom and France Telecom established a joint venture in California in 1998 covering all significant research areas. These research relationships may be affected by recent controversy between Deutsche Telekom and France Telecom. Through its corporate venture capital subsidiary T-Telematik Venture Holding GmbH, Deutsche Telekom has started providing capital for seed and early stage investments both directly and through venture capital funds, to promising companies involved in the fields of information and communications technologies, including software technology.

Deutsche Telekom is restructuring its research and development activities in 1999. Deutsche Telekom's research and development facilities Technology Center and T-Berkom and its five software development centers will be concentrated in a new subsidiary that will be responsible for research and development for products, services, networks and network elements and software for the Deutsche Telekom group. The new subsidiary, T-Nova Deutsche Telekom Innovationsgesellschaft mbH, will also provide support for the introduction into the market of its advances, and will offer consulting and systems-integration services.

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.

## 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.

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. The claim for a permanent injunction was declared settled by BT and VIAG after the European Commission in February 1997 published a notice stating that the requisite licenses had been granted in both Germany and France and that, as a result, the exemption granted to Atlas and Global One was effective as of December 1, 1996. With regard to the other claims, on April 16, 1997, the District Court in Düsseldorf rendered a declaratory judgment on the damage claim in favor of BT and VIAG, ruling that Deutsche Telekom must pay them damages. The court also ruled that Deutsche Telekom and Atlas Germany must provide certain information to the plaintiffs for use in the next phase of the trial (concerning the amount of damages to be awarded), and that Deutsche Telekom and Atlas Germany must provide costs of all parties and the court. The Higher Regional Court in Düsseldorf (*Oberlandesgericht Düsseldorf*) confirmed this judgment on June 16, 1998 with some qualifications. Both parties have filed appeals to the Federal Supreme Court. A final decision by the Federal Supreme Court is not expected to be rendered within the next three years. The parties are discussing an out-of-court-settlement, but there can be no assurance that a settlement will be reached.

In the autumn of 1997, the Post Ministry issued four orders which will expire on December 31, 1999. Under these orders, Deutsche Telekom is obligated to provide certain voice telephony interconnection services to competitors on the basis of a tariff table prescribed by the Post Ministry. See "Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection" and "—Licensed Service Providers and Carriers". Furthermore, in September 1997, the Post Ministry rejected Deutsche Telekom's application for the approval of interconnection tariffs. In the opinion of the Post Ministry, certain costs included by Deutsche Telekom in its price calculation in connection with its application were not completely allowable or the legally required proof of such costs was not presented. Deutsche Telekom filed a complaint with the Cologne Administrative Court against these four orders because, in Deutsche Telekom's opinion, the tariffs prescribed by the Post Ministry are weighted in favor of its competitors. At the end of 1997, the Post Ministry decided that all tariffs that are part of an interconnection agreement require regulatory approval. Deutsche Telekom has filed a complaint against this decision with the Cologne Administrative Court.

There is an ongoing discussion with the Regulatory Authority concerning the minimum conditions to be fulfilled by competitors to qualify as an interconnection party. The results of a public hearing were published in March 1999. See "Regulation—Special Network Access and Interconnection—Fixed-Fixed Interconnection". Deutsche Telekom has filed complaints with the Cologne Administrative Court challenging orders from the Regulatory Authority directing Deutsche Telekom to provide interconnection to various long distance service providers.

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. 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. In November 1998, the Cologne Administrative Court dismissed the challenge to the order that Deutsche Telekom had filed. Deutsche Telekom has appealed this decision. A decision by the Appellate Administrative Court in Münster on the admissibility of the appeal is pending.

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.

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. Deutsche Telekom has submitted a reply to the European Commission.

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. Though the outcome is uncertain, Deutsche Telekom believes the complaint is without merit. A decision is expected in the summer of 1999.

T-Online recently 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 a separate proceeding initiated by AOL Bertelsmann, the District Court in Hamburg (*Landgericht Hamburg*) issued an interim injunction on March 12, 1999 obligating T-Online to market and offer online services and related telephony services on an unbundled basis to its customers. T-Online is challenging this decision. AOL Bertelsmann sought an interim injunction against the introduction of the new tariff as such. On April 16, 1999, after an oral hearing, the court declined to grant the requested injunction. See "Regulation—Competition Law".

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 €14 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 March 31, 1999, Deutsche Telekom reserved €84 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  $\in$ 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.

For a description of legal proceedings brought against Deutsche Telekom by France Telecom, WIND and Enel as a consequence of Deutsche Telekom's proposed business combination with Telecom Italia, you should refer to "Business—International Investments and Joint Ventures— Cooperation with France Telecom" and "—International Investments and Joint Ventures—Other International Investments and Joint Ventures—WIND".

# Properties

As of December 31, 1998, Deutsche Telekom's property, plant and equipment had a total book value of €59.8 billion. See note 14 to the consolidated financial statements.

Deutsche Telekom AG has a large real estate portfolio in Germany, consisting on an unconsolidated basis of over 12,000 properties with an aggregate book value at December 31, 1998 of €16.7 billion. The total area of these properties amounts to approximately 64.7 million square meters, of which approximately 54.9 million square meters are developed and approximately 9.8 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 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. In 1998 and 1997, Deutsche Telekom AG identified some surplus properties and either sold or began to 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—Overview—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, 1998 was €39.1 billion.

# COMPETITION

Deutsche Telekom's most significant service—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. For a description of this liberalization process, see "Regulation—Liberalization". 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.

# **Telephone 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, many competitors crowded into Germany's fully liberalized fixed-line market. By the end of 1998, the Regulatory Authority had issued over 150 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).

The main focus of competition in 1998 was on long-distance and international calls. In this battle, which was waged almost exclusively on the basis of price in 1998, Deutsche Telekom's competitors were able to gain significant market share.

Competition in the long-distance and international markets has been facilitated by aspects of the regulatory regime. 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. 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.

Among the international carriers holding a license for voice telephony services are WorldCom and ACC. Some larger international carriers such as British Telecom entered into joint ventures with German companies. Among the larger domestic competitors are Mannesmann Arcor, o.tel.o, and VIAG Interkom. Mannesmann Arcor is a consortium led by Mannesmann, which owns the Mannesmann Mobilfunk (D2) mobile telephony provider. Through D2, Mannesmann Arcor has access to a potential customer base for fixed-line telephony services. It 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. The carrier o.tel.o is presently controlled by VEBA and RWE, two large German companies active in the electrical utility business, which also hold an interest in E-Plus. o.tel.o offers fixed network services to business and residential customers utilizing its own backbone network. It has a sizable wholesale business in the leasing of excess capacity on its backbone network. In April

1999, Mannesmann Arcor announced an agreement to acquire the fixed-line network business of o.tel.o., which if completed will considerably increase the fixed-line network capacity and customerbase of Mannesman 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 through the merger of WorldCom and MCI and the proposed acquisition by Mannesmann Arcor of o.tel.o's fixed-line network, and the creation of new alliances, such as the new joint venture between AT&T and British Telecom, captured widespread public attention in 1998 and will likely have a noticeable effect on the competitive environment. Size alone was not determinative of success in 1998, 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 two dozen major cities in Germany. Deutsche Telekom expects the voice telephony market in Germany to undergo consolidation in the medium- to long-term, but also expects that in the short-term there will continue to be new entrants in the market.

Although Deutsche Telekom does not yet face significant competition in the access and local calling markets, 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. Consequently, Deutsche Telekom may in time face increasing competition at the local level.

Deutsche Telekom's decision to place its broadband cable business in a separate subsidiary and to seek investors for that business on a regional level 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.

# **Data Communications and Systems Solutions**

Data communications and systems solutions services have been open to competition in Germany since the beginning of 1990. Competition in the business is rigorous. Among Deutsche Telekom's major competitors in the data telecommunications business are Mannesman Arcor, WorldCom, Colt, o.tel.o and VIAG Interkom. 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 85% of the German mobile telecommunications market, based on management estimates, with T-Mobil having an estimated share of 41.8% of this market as of March 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 holds an estimated 14.2%

of the market. E2, the fourth network operator, commenced operations in late 1998 using the GSM 1800 standard.

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 recently signed a contract with VIAG Interkom that will allow calls from VIAG Interkom's E2 mobile service to be seamlessly transferred to the T-D1 mobile network through the year 2000. The contract is subject to regulatory approval.

Two of T-Mobil's competitors have received licenses to use a band of frequencies that is broader than the bands used by T-Mobil. T-Mobil has submitted an application for an additional frequency band license that would expand its own frequencies to this bandwidth breadth. The Regulatory Authority has announced that it will auction additional frequencies in the 1,800 MHz range in June 1999. The auction may be highly competitive.

Licenses for UMTS (Universal Mobile Telecommunications Services), 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 will actively consider participating in these auctions when the proposed terms of the licenses are publicly announced. You should not assume that Deutsche Telekom will be awarded a license for UMTS.

# **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 new subsidiary and is seeking investors for the business, as described above under the heading "Business—Broadband Cable/Broadcasting".

## **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.

## **Special Value-Added Services**

Deutsche Telekom encounters competition from a variety of sources in the area of special value added services. There is significant substitution effect in the public telephone market as mobile telephony becomes more popular. Further, Deutsche Telekom is beginning to face 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.

# **Other Services**

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 plans to extend its reach internationally, where it will face a broad group of competitors.

#### **International Activities**

Deutsche Telekom's most significant consolidated non-German subsidiary is MATÁV, the Hungarian telecommunications company. Hungary is in the process of moving its telecommunications market toward full liberalization in anticipation of eventual European Union membership. MATÁV already 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 commenced discussions with the Hungarian Government concerning the conditions under which MATÁV would be willing to relinquish its monopoly rights ahead of schedule.

Global One competes with major international telecommunications operators and with the alliances that they have formed. Competition in the areas in which Global One operates is keen, with resultant pressures on pricing.

# 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.

Before 1989, the operation of telecommunications networks and the provision of telecommunications services in Germany were subject to a state monopoly exercised by the Deutsche Bundespost. In the initial phase of liberalization, text and data transmission services, and the remaining monopoly segments of the terminal equipment sector, were opened to competition. The mobile communications market became fully competitive in 1992, at the time of the introduction of digital mobile communications services. The provision of voice services for corporate networks and closed user groups via Deutsche Telekom's leased lines was liberalized in 1993. In August 1996, the operation of transmission paths for all telecommunications services, other than public voice telephony services in the fixed network, was completely opened to competition. Deutsche Telekom's broadband cable service had faced competition from satellite TV services and from operators of broadband distribution and small master antenna television systems for some time. In recent years, Deutsche Telekom has also faced competition in international voice telephony from providers of by-pass and callback services and from resellers in general. The step-by-step liberalization of the German telecommunications market was completed on January 1, 1998 with the elimination of Deutsche Telekom's last exclusive right: the right to provide domestic and international voice telephony services to the public by means of a fixed-network in Germany.

# 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 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 for Telecommunications and Posts (*Regulierungsbehörde für Telekommunikation und Post*) (the "Regulatory Authority"), established within the Federal Economics Ministry (*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 decision 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 1998, 167 Class 3 licenses for the provision of transmission lines and 155 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 February 1999, more than 1,100 providers of telecommunications services not subject to licensing requirements were registered with the Regulatory Authority. The provision of cable transmission programming 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, Deutsche Telekom has not applied for approval under such 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 there are multiple applications 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 such 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.

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 which have been assigned frequencies 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 nondiscriminatory 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. 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 expects that for some time to come it will be viewed by authorities as dominant in the German market for public voice telephony services in the fixed network, and in other markets, particularly 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 such 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 with providers not subject to the requirements applicable to market-dominant providers. Such 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. Deutsche Telekom intends to pursue actively the reevaluation of markets in which it is regarded as dominant as competition unfolds and the basis for unfavorable regulatory determinations diminishes.

Every two years, the Monopoly Commission *(Monopolkommission)*—an independent body that regularly issues reports on competitive conditions in Germany—is required to determine whether equal and effective competition has been achieved in the relevant telecommunications markets, such that, in its view, special regulatory measures regarding market-dominant enterprises, particularly with regard to tariffs, are no longer necessary. Based on this determination, the Monopoly Commission may make non-binding recommendations for legislative action as to which the German Government is required to state a position. The first report of the Monopoly Commission is expected in the fall of 1999.

# 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. Generally, through December 31, 1999, special network access services (including interconnection) are not subject to price-cap regulation, but are instead dealt with under the cost-based approach. After December 31, 1999, tariffs for special network access services may be subject to price-cap regulation but may not be combined in a basket with other 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. See "Business—Tariffs—Telephone Network Communication".

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. The formula calls for annual adjustments to the price-cap, initially set at the level of Deutsche Telekom's rates as in effect at the end of 1997, in an amount equal to the increase in inflation in the relevant year less 6% to reflect productivity improvements. As of January 1, 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. Further rate reductions took effect in April 1999. The composition of the service baskets for the next price-cap period (January 1, 2000 to December 31, 2001) is subject to review by the Regulatory Authority and may change.

On August 26, 1998, the Regulatory Authority approved a price-cap regulation procedure proposed by Deutsche Telekom that will allow new optional tariffs to be approved under the price-cap

procedure. 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 procedure—instead of under lengthier individual approval procedures—permits 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.

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 1999/2000.

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, 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 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. A model was developed to calculate the long-run additional infrastructure costs of the local access network. Deutsche Telekom has criticized the 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. See "—Special Network Access and Interconnection—Local Loop Access".

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. See "Business—Broadband Cable".

In connection with a retrospective review of broadband cable tariffs, the Cologne Administrative Court (*Verwaltungsgericht Köln*) on March 18, 1999 issued a decision 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. According to the court decision, exceptions to this rule can be made only in cases where Deutsche Telekom can prove it has a special interest warranting protection of its corporate and business secrets. This may have general implications for all decision panel proceedings. Deutsche Telekom has filed an appeal against this decision.

# **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, 1998, Deutsche Telekom had concluded almost 70 interconnection agreements with competitors offering long distance and international calling services over the fixed-line network. The current level of interconnection pricing was initially established by the Post Ministry, the predecessor to the Regulatory Authority, in a decision on September 12, 1997 and later confirmed and specified in greater detail in subsequent decisions of the Regulatory Authority (the "Interconnection Decisions"). These decisions established a rate structure in which interconnection tariffs are based on the distance traffic travels between the point of interconnection with Deutsche Telekom's network and the point of termination. The distance which traffic travels on Deutsche Telekom's network is therefore the chief determinant of the competitor's interconnection cost. See "Business—Licensed Service Providers and Carriers".

In the Interconnection Decisions, the Regulatory Authority refused to include any portion of the socalled access-deficit in its calculation of the costs of providing calling services. In order 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 revenues 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. However, in its interconnection decisions, the Regulatory Authority ruled that competitors who provide calling services should not be required to offset the cost to Deutsche Telekom of providing access service, reasoning that costs associated with access service bear no causal relationship to the calling services in respect of which interconnection is being provided. The interconnection decisions, however, expressly left open the issue of whether access-deficit contributions could be levied in another context. See "—Local Loop Access" below. Because of the fundamental significance of the interconnection decisions, Deutsche Telekom filed for their review by the competent judicial authorities. See "Business—Legal Proceedings". There can be no assurances as to the outcome of that judicial review.

Since the beginning of 1998, taking advantage of the low interconnection rates prescribed by the Interconnection Decisions, a large number of telecommunications providers have entered the market and are providing voice telephony service nationwide with only minimal investments in network infrastructure and in some cases despite having a license that is limited to a specific local area. These

carriers can provide their services nationwide solely by interconnecting with Deutsche Telekom's network. In a number of instances, competitors with only a small number of switches located in a particular region are soliciting customers in distance locations and then routing local or regional calls through switches located hundreds of kilometers away.

In March 1998, Deutsche Telekom submitted a complaint to the Regulatory Authority challenging these practices. Subsequently, in June 1998, Deutsche Telekom stopped concluding interconnection agreements with carriers that provide service without establishing local networks (in legal terms: carrier network operators) until the regulatory implications of this issue could be clarified. At the same time, Deutsche Telekom proposed to the Regulatory Authority a modified interconnection offer that allows for differentiation among carrier network operators based upon the level of their investment in network infrastructure. In its complaint, Deutsche Telekom alleges, among other things, that the atypical traffic flows resulting from the practices of its competitors have led to inefficient use of Deutsche Telekom's network, causing congestion which has compromised network integrity and had a negative impact on service quality. While the Regulatory Authority has since required Deutsche Telekom to conclude interconnection agreements with a number of carrier network operators, it did so pending the result of a public hearing called to examine the issues raised by Deutsche Telekom.

Following this public hearing, the Regulatory Authority announced in December 1998 certain principles which are henceforth to govern competitors' entitlement to interconnection with Deutsche Telekom's network. Under these principles, which were confirmed in the official publication in March 1999 of the results of the public hearing, operators must have at least one switch and three transmission paths to qualify for the interconnection rates established under the interconnection decisions. In addition, Deutsche Telekom is now to have the right to demand surcharges from carriers generating atypical traffic flows if such traffic flows result in additional network costs being incurred by Deutsche Telekom. Deutsche Telekom applied on March 16, 1999 to the Regulatory Authority for the right to impose surcharges on interconnection-tariffs to cover additional network investment required to maintain network integrity and quality of service. In late May 1999, the Regulatory Authority denied Deutsche Telekom's application in this regard. Apart from that, Deutsche Telekom has provisionally terminated a large number of interconnection agreements with effect from December 31, 1999, in accordance with their terms. The reasons for the provisional termination are that the period for the currently approved interconnection tariffs ends December 31, 1999, and that Deutsche Telekom intends to renew such contracts on the basis of its new interconnection offer.

#### **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. Like the fixed-fixed interconnection rates, these reduced mobile-fixed interconnection rates shall then be valid until the end of 1999. Deutsche Telekom has decided not to appeal this decision. For a discussion of developments at the EU-level, see "—Competition Law".

#### 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 for access to the two-wire copper line, the product variety most important to the competitors of DM 20.65 (€10.56) 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 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 (€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 (€12.99) effective February 8, 1999, and thereby raised the provisional monthly tariff set at DM 20.65 (€10.56) for two-wire copper in March 1998. In addition, the Regulatory Authority set one-time installation fees ranging from DM 191.64 (€97.98) to DM 337.13 (€172.37) and a fee for terminating access to two-wire copper line of DM 107.70, (€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. There can be no assurance as to the outcome of this judicial review. See "Business -Legal Proceedings".

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 of technical feasibility. In another decision, the Regulatory Authority decided that Deutsche Telekom has to grant unbundled access to the part of subscriber access lines located within their homes. Deutsche Telekom has filed suits challenging these decisions.

#### 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 will be assessed fees, the details of which are to be defined in an ordinance to be promulgated in 1999. 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, Deutsche Telekom has been informed that the Regulatory Authority plans to require Deutsche Telekom to pay a fee for numbers (other than service numbers) allocated before the liberalization of the German telecommunication market. Depending on the amount of such a fee, this requirement may impose a considerable financial burden on Deutsche Telekom. Deutsche Telekom believes that the imposition of such fees is not authorized under existing law, and is currently discussing the legal and regulatory implications of this plan with the relevant governmental authorities.

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, call-by-call selection, and number portability. 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 January 1998, Deutsche Telekom filed an application with the Regulatory Authority for the approval of a one-time charge of DM 49 ( $\in$ 25.05) for number portability. In addition, Deutsche Telekom filed applications for approval of charges for carrier pre-selection of DM 49 ( $\in$ 25.05) for 1998, DM 35 ( $\in$ 17.90) for 1999 and DM 20 ( $\in$ 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 ( $\in$ 13.80) in 1998, DM 20 ( $\in$ 10.23) in 1999 and DM 10 ( $\in$ 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 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)*. Both came into effect January 1, 1998. 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% 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 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% 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.

Until the end of 1997, Deutsche Telekom was required under the pre-Telecommunications Act Ordinance on Mandatory Services (*Pflichtleistungsverordnung*) to provide directory services, telephone books, public pay telephones (including toll-free emergency call service), and telex and telegram services on a universal basis within Germany. Public fixed-network telephony services were required to be provided on a universal basis as part of Deutsche Telekom's monopoly service. At the end of 1997, the Ordinance on Mandatory Services was superseded by the Universal Service Ordinance, which initially entered into effect only with respect to the operation of transmission lines. The Universal Service Ordinance does not require providers to offer telex or telegram services. 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 therefrom are insufficient to cover its additional costs, the compensation granted under the Telecommunications Act may be insufficient to cover its full costs of providing these services 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**

A revised Telecommunications Customer Protection Ordinance ("TKV") came into effect on January 1, 1998, replacing the 1995 TKV. In contrast to the 1995 TKV, which solely regulated contractual relations between Deutsche Telekom and its customers, the revised TKV 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 TKV.

Under the provisions of the TKV, 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 or on Sundays or holidays. 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. 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. Furthermore, the TKV allows for certain limitations on the liability of telecommunication service providers. 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.

# 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. Before the laying of new, or the modification of existing, transmission lines, the Telecommunications Act requires the consent of the authority responsible for the maintenance of the respective public ways. Deutsche Telekom has agreed on a cost-saving and delay-avoiding procedure with the federal association of municipal authorities to simplify 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 such public rights of way may be obligated to grant such operator 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, the full competition directive issued in March 1996, provides for full liberalization of the telecommunications markets in most Member States at January 1, 1998. Under that directive, with effect from January 1, 1998, public voice telephony services were liberalized in the majority of the Member States, while network infrastructure for the provision of liberalized services was required to be liberalized by July 1, 1996. Deutsche Telekom expects that, in the second half of 1999, the European Commission will adopt a directive amending Directive 90/388/EEC (the "Cable Directive"), which deals with the regulation of broadband cable networks. When adopted, the amendment to the Cable Directive will require 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. 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 June 1997, the European Commission issued a directive on interconnection in telecommunications (the "EC Interconnection Directive"). In October 1997, the European Commission submitted a proposal for amending the EC Interconnection Directive in order to call for the introduction of carrier selection and number portability within the Member States at the latest by the year 2000. Deutsche Telekom has already fulfilled these requirements. The proposal for amending the EC Interconnection Directive came into force in September 1998. In January 1999, the European Commission issued a decision on the harmonized Europe-wide introduction of the third generation of mobile systems (Universal Mobile Telecommunications Systems or "UMTS"). The 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. The final decision was published in the official journal of the European Union in January 1999. At the end of 1998 the European Commission initiated a review of the provisions of the European telecommunications directives in light of the development of competition in Europe.

Further directives, recommendations, communications and measures of the EU to harmonize the telecommunications sector in Member States are to be expected.

## International Obligations

Over 70 member countries of the World Trade Organization ("WTO") representing over 90% of the world's basic telecommunications revenues, including members of the EU 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. BTA is part of the General Agreement on Trade in Services, which is administered by the WTO. Under 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. One U.S. carrier has filed a complaint with the U.S. Trade Representative against the Federal Republic alleging a failure to comply with its commitments under BTA. See "Business—Legal Proceedings".

# **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 marketdominant 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 marketdominant 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 marketdominant 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.

Recently, 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 "Business—Legal Proceedings".

In 1998 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 announced 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.

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. At present Deutsche Telekom is seeking such an exemption for its cooperation program with France Telecom.

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. The creation of the WIND joint venture in Italy between Deutsche Telekom, France Telecom and Enel was submitted for review and was cleared within one month.

# MANAGEMENT AND EMPLOYEES

## Management

# 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. 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 DM 50 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 DM 5 million or an annual turnover of more than DM 50 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.

As a result of the Law Amending the German Stock Corporation Act (*KonTraG*), the Supervisory Board now has extended monitoring functions. For example, the new Act specifies the Board of Management's obligations to report to the Supervisory Board with regard to future business planning. The Board of Management is required to ensure appropriate risk management within Deutsche Telekom. Starting in 1998, the Supervisory Board is also required to review not only the annual financial statements of Deutsche Telekom AG but also the consolidated financial statements. As of the 1998 financial year, the official auditor will no longer be engaged by the Board of Management but by the Supervisory Board. The Act also includes other amendments referring to various items in the annual financial statements.

The Board of Management must establish an internal monitoring system and submit regular reports on the operations and fundamental planning of Deutsche Telekom to the Supervisory Board, and 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.

The current members of the Board of Management, their ages and responsibilities, dates of appointment and experience are set forth below. The members of the Board of Management may be reached at Deutsche Telekom's registered address.

**Dr. Ron Sommer** (49 years) was appointed Chairman of the Board of Management in May 1995. As such, he is responsible for the Corporate Group Strategy, Communication, Auditing and Organization Division, for regulatory issues and for high-level personnel of Deutsche Telekom. He received a doctorate in mathematics and began his career with the Nixdorf group, first in New York and then in Paderborn and Paris. In 1980, he became Managing Director of Sony Deutschland and in 1986 become Chairman of the Board of Management of Sony Deutschland. In 1990, Dr. Sommer became President and Chief Operating Officer of Sony USA, and in 1993, he took over the management of Sony Europe in the same capacity.

**Josef Brauner** (48 years) became head of the Sales and Customer Care Division in October 1998. He had joined Deutsche Telekom in June 1997 as head of the Main Department for Sales. He started his sales career with Avery as the U.S. company's branch manager for Germany, Austria and Switzerland. Mr. Brauner next joined Sony Deutschland, where he was appointed head of sales in the investment goods division and afterwards became head of that division. In 1988, Mr. Brauner became a member of the Board of Management of Sony Deutschland, and in 1993 was appointed chairman of that board.

**Detlev Buchal** (54 years) was appointed head of the Product Marketing Division in October 1998, having previously acted as head the Sales and Distribution Division (Business and Residential Customers). After holding various management positions in the banking industry, he joined the Board of Management of the GZS Gesellschaft für Zahlungssysteme mbH of the German Eurocard- und eurocheque-Zentrale. In 1992, he became chairman of that Board, primarily responsible for strategic planning, marketing and sales. Since February 1996, he has been a member of Deutsche Telekom's Board of Management.

**Jeffrey A. Hedberg** (38 years) has been head of the International Division since January 1999. A U.S. citizen, Mr. Hedberg joined the TVM/Matuschka group in Munich, where he was primarily involved in analyzing venture capital projects for companies with international operations. Later, he worked in the international division of US West, the U.S. carrier, and then as an associate for Coopers & Lybrand, where he provided support for the international projects of globally active telecommunications groups. In 1994, Mr. Hedberg joined Swisscom, where he was last in charge of the Swiss company's international investments as Executive Vice President and member of the company's senior management.

**Dr. Hagen Hultzsch** (58 years) was appointed head of the Technology and Services Division in July 1993. Dr. Hultzsch received a doctorate in physics and was Assistant Professor in Mainz before in 1977 becoming head of the Computer Center of the Gesellschaft für Schwerionen Forschung Gase, Center for Heavy Ion Research) in Darmstadt. In 1985, he became Director of the Technical Services Group Germany at Electronic Data Systems. In 1988, Dr. Hultzsch joined Volkswagen AG as the Corporate Executive Director responsible for Organization and Information Systems. From July 1993 until 1994, he was a member of the Board of Management of Deutsche Bundespost TELEKOM, and since January 1995, he has been a member of Deutsche Telekom's Board of Management.

**Dr. Heinz Klinkhammer** (52 years) was appointed head of the Personnel and Legal Affairs Division in 1996. Dr. Klinkhammer received a doctorate in law and began his career at the Institute for German and European Labor, Social and Business Law before becoming a Labor Court judge. From 1979 to 1990, he worked at the Ministry of Labor, Health and Social Affairs of the state of North-Rhine/Westphalia. In 1991, he became Labor Director at Hüttenwerke Krupp Mannesmann GmbH and, in 1992, Board Member of Mannesmannröhren-Werke AG. He has been a member of Deutsche Telekom's Board of Management since April 1996.

**Dr. Joachim Kröske** (55 years) was appointed head of the Finance and Controlling Division in 1995. After earning a degree in business administration and attaining a doctorate, Dr. Kröske held various management positions at Philips from 1972 to 1986 (including the positions of Head of Central Business Management of Philips Deutschland and Head of Accounting Management of the company divisions for car radios and electronic components). In 1986, he became Accounting Manager of Dräger Werke in Lübeck. From 1990 to 1994, he was member of the Board of Management of Deutsche Bundespost TELEKOM and, since January 1995, he has been a member of Deutsche Telekom's Board of Management.

Dr. Kröske has announced that he does not intend to continue in his post when his current fiveyear appointment expires in March 2000.

**Gerd Tenzer** (55 years) was appointed head of the Networks Division in January 1990 and is now also responsible for Purchasing, Environmental Protection, Licensed Service Providers/Carriers and Broadband Cable/Broadcasting. From 1990 to 1994, he was a member of the Board of Management of Deutsche Bundespost TELEKOM, and has been a member of Deutsche Telekom's Board of Management since January 1995. As a communications engineer, he worked in the telecommunications research department at AEG-Telefunken from 1968 to 1970. In 1970, he joined

what was then the Deutsche Bundespost. In 1975, Mr. Tenzer moved to the Post Ministry, where he became head of the Telecommunications Policy Section in 1980.

The members of Deutsche Telekom's Board of Management owned a total of approximately 4,000 Deutsche Telekom shares as of April 15, 1999.

# Supervisory Board

In accordance with Deutsche Telekom's Articles of Incorporation, 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 a general meeting of the shareholders. 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 a general meeting of shareholders. 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 a court order.

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 most recent election of shareholder representatives to the Supervisory Board took place at the shareholders' meeting in July 1996. Their terms of office 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.

As a result of a change in certain legal requirements with respect to the Supervisory Boards of German companies, Dr. Klaus Götte left the Supervisory Board with effect from April 30, 1998. This Supervisory Board position was filled by Michel Bon (from June 4, 1998), the Chairman and Chief Executive Officer of France Telecom, in connection with an exchange of members with France Telecom.

Helmut Dettmer, an employees' representative on Deutsche Telekom's Supervisory Board, left the Board for personal reasons with effect from August 31, 1998. His position was filled by Rainer Röll (from November 6, 1998) on the basis of a court order.

On the side of the shareholders' representatives, Dr. Jürgen Stark, former State Secretary in the Federal Ministry of Finance, resigned from the Supervisory Board with effect from October 27, 1998, when he joined Deutsche Bundesbank. His position was filled by Dr. Claus Noé, State Secretary in the Federal Ministry of Finance, with effect from January 13, 1999 on the basis of a court order.

Veronika Altmeyer stepped down 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 stepped down 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 will be filled by Waltraud Litzenberger with effect from June 1, 1999.

The members of the Supervisory Board owned a total of approximately 1,700 Deutsche Telekom shares as of April 15, 1999.

The current members of Deutsche Telekom's Supervisory Board, the years of their appointment and their principal occupations are as follows:

Name	Member since	Principal Occupation
Prof. Dr. Helmut Sihler	1996	Chairman, Member of the Shareholders' Committee of Henkel KGaA
Rüdiger Schulze	1999	Vice Chairman, Member of the Management Board of the German Postal Union
Reinhard Ahrensmeier	1997	Chairman of the Central Works Council and Head Office Works Council at Deutsche Telekom Immobilien and Service GmbH
Gert Becker	1995	Former Chairman of the Board of Management of Degussa AG
Michel Bon	1998	Chief Executive Officer France Telecom S.A.
Josef Falbisoner	1997	Chairman of Deutsche Postgewerkschaft trade union, Southern Bavaria District
Dr. sc. techn. Dieter Hundt	1995	Managing Partner of Allgaier Werke GmbH & Co. KG; President of the National Union of German Employers Associations
Franz-Josef Klare	1995	Chairman of Deutsche Postgewerkschaft trade union, Münster District
Dr. h.c. André Leysen	1995	Chairman of the Supervisory Board of AGFA- GEVAERT N.V.
Waltraud Litzenberger	1999	Chairman of the Advisory Council of NL Bad Kreuznach
Michael Löffler	1995	Chairman of the Works Council at Leipzig Branch Office 1, Deutsche Telekom AG
Maud Pagel	1995 (until May 31, 1999)	Equal Opportunities Commissioner, Deutsche Telekom AG
Hans W. Reich	1999	Member of the Board of Directors of Kreditanstalt für Wiederaufbau
Rainer Röll	1998	Vice-Chairman of the Central Works Council at Deutsche Telekom AG
Wolfgang Schmitt	1997	Head of Freiburg i.B. Regional Directorate, Deutsche Telekom AG
Ursula Steinke	1995	Chairwoman of the Works Council at Northern District Service and Computer Center, Deutsche Telekom AG
Prof. Dr. h.c. Dieter Stolte	1995	Director general of the Zweites Deutsches Fernsehen (ZDF) broadcasting organization
Bernhard Walter	1999	Speaker of the Management Board of Dresdner Bank
Wilhelm Wegner	1996	Chairman of the Central Works Council at Deutsche Telekom AG
Dr. Hans-Dietrich Winkhaus Prof. Dr. Heribert Zitzelsberger	1999 1999	Chairman of the Management of Henkel KGaA State Secretary in BMF, the Federal Finance Ministry (Bundesministerium der Finanzen)

# **Compensation of Directors and Officers**

In addition to reimbursement of actual out-of-pocket expenses, members of the Supervisory Board receive a fee of €128 per meeting in respect of imputed out-of-pocket expenses and an annual

payment, the amount of which will be determined by the shareholders' meeting on May 27, 1999. The proposed annual compensation for 1998 is  $\in$ 24,542 for the Chairman,  $\in$ 18,407 for the Deputy Chairman and at  $\in$ 12,271 for each remaining member of the Supervisory Board. Remuneration was paid to members of the Supervisory Board of Deutsche Telekom AG in 1998 in the amount of  $\in$ 251,556 inclusive of meeting expenses of  $\in$ 19,940.

Provided the 1998 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 1998, will amount to €4,690,994. 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, 1998, 36.3% 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 will be introduced in the year 2000.

Pension accruals totaling  $\notin$ 4,045,526 have been established for the members of the Board of Management as of December 31, 1998. Obligations for such persons for which no reserve has been established amounted to  $\notin$ 2,661,208 as of December 31, 1998. Payments to former members of the Board of Management of Deutsche Telekom AG or their surviving family members amounted to  $\notin$ 3,904,266 in 1998.

#### Employees

## **Civil Servants**

As of December 31, 1998, approximately 46.8% of the employees of Deutsche Telekom (excluding subsidiaries first consolidated after January 1, 1995) were civil servants. No employees hired after January 1, 1995, have been granted civil servant status. Pursuant to Postreform II, upon conversion of Deutsche Telekom to a stock corporation, Deutsche Telekom's civil servant employees retained their civil servant status. 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 Postreform II 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 Postreform II, 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 is obligated to make annual contributions of €1.5 billion to this fund. Beginning in 2000, Deutsche Telekom will be obligated to make annual contributions equal to 33% 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 current annual contribution. 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, 1998, approximately 53.2% of Deutsche Telekom's employees (excluding subsidiaries first consolidated after 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 Postreform II, 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 "Relationship with the Federal Republic—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 has a term of fifteen months, running through March 31, 2000. According to this agreement, the salaries for non-civil servants were raised by 3.1% 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 €153. 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% for salaries of non-civil servants. 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-á-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 1995 was continued in the 1998 financial year. In comparison with the workforce level at the end of 1997, the number of employees of Deutsche Telekom—excluding employees of subsidiaries that were first consolidated after January 1, 1995—had decreased by some 12,000 by December 31, 1998. 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 a collective bargaining agreement, there will be no dismissals due to rationalization before the end of the year 2000.

Deutsche Telekom's medium-term goal of reducing its workforce (not including MATÁV personnel) to about 170,000 by the year 2000 without involuntary layoffs—a reduction of 60,000 from the 1994 level—will be fulfilled ahead of time. Deutsche Telekom expects that workforce levels will continue to

decline in the following years. Additional workforce reduction initiatives could result in restructuring charges or expenses.

Workforce productivity measured in terms of revenue per employees, improved in 1998. The workforce reductions have cut Deutsche Telekom's personnel costs. In 1998, these costs amounted to  $\in$ 9.2 billion, representing a decrease of 2.2% compared to the 1997 financial year. Revenue per employee—based on the 1995 composition of the consolidated group—increased by 9.4% to  $\in$ 185,100 per employee in 1998.

## **DESCRIPTION OF SHARES**

Set forth below is a summary of certain information relating to Deutsche Telekom's share capital and of certain provisions of Deutsche Telekom's Articles of Association and German law. This summary is not complete and is qualified by reference to Deutsche Telekom's Articles of Association and German law as in effect at the date of this prospectus.

# Share Capital

Without giving effect to this offering, Deutsche Telekom's share capital amounts to  $\in$ 7,023,872,000 divided into 2,743,700,000 shares. Under German law, the individual shares do not have a par value as such, but they do have a notional par value that can be determined by dividing the share capital amount by the number of shares.

At their annual meeting held on May 27, 1999, the shareholders of Deutsche Telekom approved the conversion of all the shares of Deutsche Telekom from bearer form to registered form. This resolution will be filed for registration with the commercial register after the technical prerequisites for the settlement of stock exchange transactions of registered shares in Germany have been satisfied, which is expected to be in autumn of 1999. Upon the registration of the resolution, all ordinary shares of Deutsche Telekom will be issued in registered form.

The Board of Management is authorized by Deutsche Telekom's Articles of Incorporation to increase Deutsche Telekom's capital stock by up to €2,556,459,405.8 by issuing new shares for cash or noncash consideration through the end of 1999. This means that, after giving effect to the initial public offering of shares that took place in 1996, the Board of Management may, through the end of 1999, increase Deutsche Telekom's capital stock by a further €731,914,327.93 million, representing 285,904,034 individual no par value shares.

The Board of Management resolved on June 3, 1999 to increase the share capital by up to  $\leq 15,192,693.76$  through the issue of up to 5,934,646 new shares and with a notional par value of  $\leq 2.56$  and with full entitlement for dividends as from January 1, 1999. The Supervisory Board, acting through its Steering Committee, approved this resolution on June 3, 1999. These new shares have been subscribed for DG Bank Deutsche Genossenschaftsbank AG and offered to employees of Deutsche Telekom and its subsidiaries.

The Board of Management further resolved on June 3, 1999 to increase the share capital by up to  $\in$ 716,721,633.28 through the issue of up to 279,969,388 ordinary bearer shares and with a notional par value of  $\in$ 2.56 and with full entitlement to dividends as of January 1, 1999. The Supervisory Board, acting through its Steering Committee, approved this resolution on June 3, 1999. The new shares to be issued under this resolution may be issued and subscribed for in two tranches:

- By issuing up to 250,000,000 ordinary bearer shares, no par value, with a notional par value of €2.56 and full dividend entitlement for the fiscal year 1999, which shares may be subscribed for by the global coordinators at an issue price of €2.56 each; and
- By issuing up to 29,969,388 ordinary bearer shares, no par value, with a notional par value of €2.56 and full dividend entitlement for the fiscal year 1999 at an issue price of €2.56 each, which shares may be subscribed for by the global coordinators upon exercise of the overallotment option.

Deutsche Telekom expects that the Federal Agency on behalf of the Federal Republic and KfW will declare that they do not intend to exercise or sell their preemptive rights over the shares to be issued in the combined offering, including any shares covered by the underwriters' overallotment option.

## **Preemptive Rights**

Under the German Stock Corporation Act, every shareholder generally has preemptive rights with respect to an issuance of new shares (including securities convertible into shares, securities with warrants to purchase shares, profit-sharing certificates and securities with a profit participation). Preemptive rights are freely transferable and may be traded on the German stock exchanges for a limited number of days prior to the final date for the exercise of the rights. Shareholders may exclude preemptive rights through a resolution passed by a majority of votes cast at a shareholders' meeting where at least three-quarters of the share capital is represented. In addition, an exclusion of preemptive rights requires a report by the Board of Management, which must justify the exclusion by establishing that Deutsche Telekom's interest in the exclusion outweighs the shareholders' interest in exercising their preemptive rights. Preemptive rights related to the issuance of new shares may be excluded without the justification if

- Deutsche Telekom increases share capital for cash contributions;
- the amount of the increase does not exceed 10% of the issued share capital; and
- the shares are sold at a price not substantially lower than the current quoted share price.

# Voting Rights and Shareholders' Meetings

Each share entitles its holder to one vote at Deutsche Telekom's general meeting of the shareholders. Shareholders may pass resolutions at a general meeting by a majority of the votes cast, unless a higher vote is required by law or by Deutsche Telekom's Articles of Association. Neither the German Stock Corporation Act nor the Articles of Association provide for minimum quorum requirements for shareholders meetings. The German Stock Corporation Act and the Articles of Association require that significant resolutions be passed by a majority of the votes cast and with at least three-quarters of the share capital represented at a meeting.

These significant resolutions include:

- capital increases with an exclusion of preemptive rights;
- capital decreases;
- the creation of authorized capital (genehmigtes Kapital) or conditional capital (bedingtes Kapital);
- dissolution of Deutsche Telekom;
- merger of Deutsche Telekom into or consolidation of Deutsche Telekom with another stock corporation;
- split- or spin-off; transfer of all Deutsche Telekom's assets;
- conclusion of intercompany agreements (*Unternehmensverträge*), including, in particular, direct control and profit and loss pooling agreements; and
- a change in Deutsche Telekom's corporate form.

A general meeting of the shareholders of Deutsche Telekom may be called by the Board of Management, the Supervisory Board or by shareholders holding in the aggregate at least 5% of Deutsche Telekom's issued share capital. The annual general meeting must take place within the first eight months of the fiscal year and is called by the Board of Management upon the receipt of the Supervisory Board's report on the annual financial statements. Under the Articles of Association the right to attend and to vote at a shareholders' meeting will only be given to those shareholders who, for the duration of the meeting, deposit their shares with Deutsche Telekom, a German notary, a bank serving as a depositary for the securities or any other place of deposit specified in the notice of the date of the general meeting. Following the deposit of shares, a shareholder may still sell or otherwise dispose of his shares, but any voting instructions the transferring shareholder may have given with respect to such shares will be invalidated. Deutsche Telekom must publish notice of shareholders'

meetings in the Federal Gazette (Bundesanzeiger) at least one month before the last day on which the shares must be deposited. In addition, Deutsche Telekom must publish a notice in a national authorized stock exchange journal.

As soon as the conversion of all Deutsche Telekom shares into registered shares has been entered into the Commercial Register, which is expected to occur in the autumn of 1999, holders of shares (but not holders of ADSs) will be required to provide to Deutsche Telekom their names, addresses and occupations (or, in the case of business entities, their names, business addresses and registered seats) as well as the number of shares held, so that they can be entered into the share register to be maintained by Deutsche Telekom. After this conversion has been registered in the Commercial Register, those shareholders who have given timely notice to Deutsche Telekom in writing or by fax and who are registered in the share register at the time of this notice may participate in and vote in the general shareholders' meeting. This notice must be given early enough so that there are at least two days between the day when the notice is given and the day of the general shareholders' meeting. Following receipt of a notice of this type, Deutsche Telekom will not enter a transfer of the related shares in the share register until after the conclusion of the general shareholders' meeting.

# Dividends and Claims upon Liquidation

Deutsche Telekom may pay dividends immediately following the resolution by the general meeting of shareholders on the distribution of profits. Shareholders participate in profit distributions in proportion to the nominal value of their shares.

Under German law, Deutsche Telekom may declare and pay dividends only from balance sheet profits as shown in the annual financial statements. In determining the distributable balance sheet profits, the Board of Management and the Supervisory Board may allocate to profit reserves *(andere Gewinnrücklagen)*, either in whole or in part, the annual surplus *(Jahresüberschuß)* that remains after allocation to statutory reserves and losses carried forward. Under the Articles of Association, transferring more than one-half of the annual surplus is not permissible if, following the transfer, the accumulated reserves out of surplus would exceed one-half of Deutsche Telekom's share capital. The shareholders, in determining the distribution of profits, may allocate additional amounts to profit reserves and may carry forward profits in part or in full.

Dividends approved at a shareholders' meeting are payable on the first stock exchange trading day after that meeting (unless otherwise decided at the shareholders' meeting). In the case of shareholders holding physical certificates, the paying agents appointed by Deutsche Telekom will pay dividends upon presentation of the appropriate dividend coupon. Details regarding paying agents are published in the Federal Gazette. Shareholders holding shares through the DBC will receive dividends by credit to their respective accounts.

In accordance with the German Stock Corporation Act, upon a liquidation of Deutsche Telekom, shareholders will receive, in proportion to their holdings of shares, any liquidation proceeds remaining after paying off all Deutsche Telekom's liabilities.

## Notification Requirements

Under the German Securities Trading Act (*Wertpapierhandelsgesetz*), anyone whose direct or indirect voting interest reaches, exceeds or, after reaching, falls below 5%, 10%, 25%, 50% or 75% of the voting rights in Deutsche Telekom must, within no more than seven calendar days, inform Deutsche Telekom and the Federal Supervisory Authority for Securities Trading (*Bundesaufsichtsamt für den Wertpapierhandel*) in writing (1) that he has reached, exceeded or fallen below one of these thresholds and (2) of the extent of his voting rights. Failure to notify Deutsche Telekom or the Federal

Supervisory Authority will, for so long as such failure continues, disqualify the shareholder from exercising the rights attached to his shares (including voting rights and the right to receive dividends). In addition, a penalty may be imposed as provided for by law.

## German Foreign Exchange Controls

At present, the Federal Republic does not restrict the movement of capital between Germany and other countries except investments in Iraq, Libya, Yugoslavia and Serbia. These restrictions are established 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 to the German Central Bank (*Deutsche Bundesbank*) any payment received from or made to a non-resident corporation or individual if the payment exceeds DM 5,000 or  $\in 2,500$  (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  $\in 1.5$  million (or the equivalent in a foreign currency) at the end of any calendar month.

Neither German law nor the Articles of Association of Deutsche Telekom restricts the right of nonresident or foreign owners of the shares to hold or vote the shares.

## DESCRIPTION OF AMERICAN DEPOSITARY RECEIPTS

Citibank, N.A. will act as the depositary bank for the American Depositary Shares. Citibank's depositary offices are located at 111 Wall Street, New York, New York 10043. American Depositary Shares are frequently referred to as "ADSs" and represent ownership interests in securities that are on deposit with the depositary bank. ADSs are normally represented by certificates that are commonly known as "American Depositary Receipts" or "ADRs." The depositary bank typically appoints a custodian to safekeep the securities on deposit. In this case, the custodian is Citibank AG, located at Neue Mainzer Strasse 75, Frankfurt am Main, Germany.

Deutsche Telekom has appointed Citibank as depositary bank pursuant to a deposit agreement. The depositary bank will make available for inspection by holders at its office and at the office of Citibank AG copies of documents, reports and communications in respect of the ADSs, including the deposit agreement and Deutsche Telekom's Articles of Association. A copy of the deposit agreement is also on file with the Securities and Exchange Commission under cover of a Registration Statement on Form F-6. You may obtain a copy of the deposit agreement from the Commission's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please refer to Registration Number 333-5724 when retrieving a copy of the deposit agreement.

Deutsche Telekom is providing you with a summary description of the ADSs and your rights as an owner of ADSs. Please remember that summaries by their nature lack the precision of the information summarized and that your rights and obligations as an owner of ADSs will be determined by the deposit agreement and not by this summary. Deutsche Telekom urges you to review the deposit agreement in its entirety as well as the form of ADR attached to the deposit agreement.

Each ADS represents one share or the right to receive one share on deposit with the custodian bank. An ADS will also represent any other property received by the depositary bank or the custodian on behalf of the owner of the ADS but that has not been distributed to the owners of ADSs because of legal restrictions or practical considerations.

If you become an owner of ADSs, you will become a party to the deposit agreement and therefore will be bound to its terms and to the terms of the ADR that represents your ADSs. The deposit agreement and the ADR specify Deutsche Telekom's rights and obligations as well as your rights and obligations as owner of ADSs and those of the depositary bank. As an ADS holder you appoint the depositary bank to act on your behalf in certain circumstances. The deposit agreement and the ADRs are governed by New York law. However, Deutsche Telekom's obligations to the holders of shares will continue to be governed by the laws of Germany, which may be different from the laws in the United States.

As an owner of ADSs, you may hold your ADSs either by means of an ADR registered in your name or through a brokerage or safekeeping account. If you decide to hold your ADSs through your brokerage or safekeeping account, you must rely on the procedures of your broker or bank to assert your rights as an ADS owner. Please consult with your broker or bank to determine what those procedures are. This summary description assumes you have opted to own the ADSs directly by means of an ADR registered in your name and, as such, it will refer to you as the "holder." When this summary refers to "you," it is on the assumption that the reader owns new ADSs and will own ADSs at the relevant time.

#### **Dividends and Distributions**

As a holder, you generally have the right to receive the distributions Deutsche Telekom makes on the securities deposited with the custodian bank. Your receipt of these distributions may be limited, however, by practical considerations and legal limitations. Holders will receive the distributions under the terms of the deposit agreement in proportion to the number of ADSs held as of a specified record date.

#### Distributions of Cash

Whenever Deutsche Telekom makes a cash distribution for the securities on deposit with the custodian, it will notify the depositary bank. Subject to any restrictions imposed by German laws or regulations, upon receipt of this notice the depositary bank will arrange for the funds to be converted into U.S. Dollars and for the distribution of the U.S. Dollars to the holders.

The conversion into U.S. Dollars will take place only if practicable and if the U.S. Dollars are transferable to the United States. The amounts distributed to holders will be net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. The depositary will apply the same method for distributing the proceeds of the sale of any property, including costs estimated with conversions of foreign currency into U.S. Dollars (such as undistributed rights) held by the custodian in respect of securities on deposit.

# **Distributions of Shares**

Whenever Deutsche Telekom makes a free distribution of shares for the securities on deposit with the custodian, it will notify the depositary bank. Upon receipt of the notice, the depositary bank will either distribute to holders new ADSs representing the shares deposited or, with the written consent of Deutsche Telekom, modify the ratio of ADS to shares, in which case each ADS you hold will represent rights and interests in the additional shares so deposited. Only whole new ADSs will be distributed. Fractional entitlements will be sold and the proceeds of the sale will be distributed as in the case of a cash distribution.

The distribution of new ADSs or the modification of the ADS-to-share ratio upon a distribution of shares will be made net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. To pay the taxes or governmental charges, the depositary bank may sell all or a portion of the new shares so distributed.

No distribution of new ADSs will be made if it would violate a law (e.g., the U.S. securities laws) or if it is not operationally practicable. On a distribution of new ADSs, the depositary bank may reasonably request an opinion of counsel regarding the need for registration of the distribution under the United States Securities laws. Any such request may delay distribution to you or new ADSs. If the depositary bank does not distribute new ADSs as described above, it may sell the shares received and distribute the proceeds of the sale as in the case of a distribution of cash.

#### Distributions of Rights

Whenever Deutsche Telekom intends to distribute rights to purchase additional shares, it may give prior notice to the depositary bank and may assist the depositary bank in determining whether it is lawful and reasonably practicable to distribute rights to purchase additional ADSs to holders.

The depositary bank will establish procedures to distribute rights to purchase additional ADSs to holders and to enable holders to exercise their rights if it is lawful and reasonably practicable to make the rights available to holders of ADSs, and if Deutsche Telekom provides all of the documentation contemplated in the deposit agreement (such as opinions to address the lawfulness of the transaction). You may have to pay fees, expenses, taxes and other governmental charges to subscribe for the new ADSs upon the exercise of your rights. The depositary bank is not obligated to establish procedures to facilitate the distribution and exercise by holders of rights to purchase new shares directly rather than new ADSs.

The depositary bank will not distribute the rights to you if:

• Deutsche Telekom does not request that the rights be distributed to you or if it asks that the rights not be distributed to you; or

- Deutsche Telekom fails to deliver satisfactory documents to the depositary bank; or
- it is not reasonably practicable to distribute the rights.

The depositary bank will sell the rights that are not exercised or not distributed if the sale is lawful and reasonably practicable. The proceeds of the sale will be distributed to holders as in the case of a cash distribution. If the depositary bank is unable to sell the rights, it will allow the rights to lapse.

## **Elective Distributions**

Whenever Deutsche Telekom intends to distribute a dividend payable at the election of shareholders either in cash or in additional shares, it will give prior notice thereof to the depositary bank and will indicate whether it wishes the elective distribution to be made available to you. In such case, Deutsche Telekom will assist the depositary bank in determining whether the distribution is lawful and reasonably practical.

The depositary bank will make the election available to you only if it is reasonably practical and if Deutsche Telekom has provided all of the documentation contemplated in the deposit agreement. In such case, the depositary bank will establish procedures to enable you to elect to receive either cash or additional ADSs, in each case as described in the deposit agreement.

If the election is not made available to you, you will receive either cash or additional ADSs, depending on what a shareholder in Germany would receive for failing to make an election, as more fully described in the deposit agreement.

#### **Other Distributions**

Whenever Deutsche Telekom intends to distribute property other than cash, shares or rights to purchase additional shares, it will notify the depositary bank in advance and will indicate whether it wishes the distribution to be made to you. If so, Deutsche Telekom will assist the depositary bank in determining whether the distribution to holders is lawful and reasonably practicable.

If it is reasonably practicable to distribute the property to you and if Deutsche Telekom provides all of the documentation contemplated in the deposit agreement, the depositary bank will distribute the property to the holders in a manner it deems practicable.

The depositary bank will make the distribution net of fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. In order to pay the taxes and governmental charges, the depositary bank may sell all or a portion of the property received.

The depositary bank will not distribute the property to you and will sell the property if:

- Deutsche Telekom does not request that the property be distributed to you or if it asks that the property not be distributed to you; or
- Deutsche Telekom fails to deliver satisfactory documents to the depositary bank; or
- The depositary bank determines that all or a portion of the distribution to you is not reasonably practicable.

The depositary bank will distribute the proceeds of the sale to holders as in the case of a cash distribution.

#### **Changes Affecting Shares**

The shares held on deposit for your ADSs may change from time to time. For example, there may be a change in nominal or par value, a split-up, cancellation, consolidation or classification of the shares or a recapitalization, reorganization, merger, consolidation or sale of assets.

If any such change were to occur, your ADSs would, to the extent permitted by law, represent the right to receive the property received or exchanged in respect of the shares held on deposit. The depositary bank may in such circumstances deliver new ADSs to you or call for the exchange of your existing ADSs for new ADSs and will do so upon request of Deutsche Telekom to the extent legally permitted. If the depositary bank may not lawfully distribute the property to you, the depositary bank may sell the property and distribute the net proceeds to you as in the case of a cash distribution.

#### Issuance of ADSs upon Deposit of Shares

The depositary bank may create ADSs on your behalf if you deposit shares with the custodian. The depositary bank will deliver these ADSs to the person you indicate only after you pay any applicable issuance fees and any charges and taxes payable for the transfer of the shares to the custodian.

The depositary bank may delay the issuance of ADSs until the depositary bank or the custodian receives confirmation that all required approvals have been given and that the shares have been duly transferred to the custodian. The depositary bank will only issue ADSs in whole numbers.

When you deposit shares, you will be responsible for transferring good and valid title to the depositary bank. You will thus be deemed to represent and warrant the following:

- The shares are duly authorized, validly issued, fully paid, non-assessable and legally obtained.
- All preemptive (and similar) rights, if any, with respect to the shares have been validly waived or exercised.
- You are authorized to deposit the shares.
- The shares presented for deposit are free and clear of any encumbrance, security interest, or other adverse claim, and are not, and the ADSs issuable upon the deposit are not subject to any other restriction on sale, transfer or deposit under the laws of the United States, the Federal Republic of Germany, or under a shareholders' agreement, or the Articles of Association, or any applicable regulations of any securities exchange.

If any of the representations or warranties are incorrect in any way, Deutsche Telekom and the depositary bank may, at your cost and expense, take any and all actions necessary to correct the consequences of the misrepresentations.

#### Withdrawal of Shares upon Cancellation of ADSs

As a holder, you will be entitled to present your ADSs to the depositary bank for cancellation and then receive the underlying shares at the custodian's offices. To withdraw the shares represented by your ADSs, you will be required to pay to the depositary the fees for cancellation of ADSs and any charges and taxes payable upon the transfer of the shares being withdrawn. You assume the risk for delivery of all funds and securities upon withdrawal. Once canceled, the ADSs will not have any rights under the deposit agreement.

If you hold an ADR registered in your name, the depositary bank may ask you to provide proof of identity and genuineness of any signature and certain other documents as the depositary bank may

deem appropriate before it will cancel your ADSs. The depositary bank may delay the withdrawal of the shares represented by your ADSs until it receives satisfactory evidence of compliance with all applicable laws and regulations. Please keep in mind that the depositary bank will only accept ADSs for cancellation that represent a whole number of securities on deposit.

You will have the right to withdraw the securities represented by your ADSs at any time except in the following cases:

- Upon the request of Deutsche Telekom, including for the purpose of facilitating orderly voting of the shares on deposit.
- Outstanding obligations to pay fees, taxes and similar charges.
- Restrictions imposed because of laws or regulations applicable to ADSs or the withdrawal of securities on deposit.

The deposit agreement may not be modified to impair your right to withdraw the securities represented by your ADSs except to comply with mandatory provisions of law.

# Voting Rights

As a holder, you generally have the right under the deposit agreement to instruct the depositary bank to exercise the voting rights for the shares represented by your ADSs. At Deutsche Telekom's request, the depositary bank will mail to you any notice of shareholders' meeting received from Deutsche Telekom together with information explaining how to instruct the depositary bank to exercise the voting rights of the securities represented by ADSs. If the depositary bank timely receives voting instructions from a holder of ADSs, it will endeavor to vote the securities represented by the holder's ADSs in accordance with the voting instructions.

Please note that the ability of the depositary bank to carry out voting instructions may be limited by practical and legal limitations and the terms of the securities on deposit (including Deutsche Telekom's Articles of Association). Deutsche Telekom cannot assure you that you will receive voting materials in time to enable you to return voting instructions to the depositary bank in a timely manner. Securities for which no voting instructions have been received will not be voted.

# Fees and Charges

As an ADS holder, you will be required to pay the following service fees to the depositary bank:

Service	Fees
Issuance of ADSs	Up to 5¢ per ADS issued
Cancellation of ADSs	Up to 5¢ per ADS canceled
Exercise of rights to purchase additional ADSs	Up to 5¢ per ADS issued

As an ADS holder you will also be responsible to pay certain fees and expenses incurred by the depositary bank and certain taxes and governmental charges such as:

- Fees for the transfer and registration of shares (i.e., upon deposit and withdrawal of shares).
- Expenses incurred for converting foreign currency into U.S. Dollars.
- Expenses for cable, telex and fax transmissions and for delivery of securities.
- Taxes and duties upon the transfer of securities (i.e., when shares are deposited or withdrawn from deposit).

Deutsche Telekom has agreed to pay certain other charges and expenses of the depositary bank. Note that the fees and charges you may be required to pay may vary over time and may be changed by Deutsche Telekom and by the depositary bank. You will receive prior notice of any changes.

## Amendments and Termination

Deutsche Telekom may agree with the depositary bank to modify the deposit agreement at any time without your consent. Deutsche Telekom agrees to give holders 60 days' prior notice of any modifications that would prejudice any of their substantial rights under the deposit agreement (except in very limited circumstances enumerated in the deposit agreement).

You will be bound by the modifications to the deposit agreement if you continue to hold your ADSs after the modifications to the deposit agreement become effective. The deposit agreement cannot be amended to prevent you from withdrawing the shares represented by your ADSs (except as permitted by law).

Deutsche Telekom has the right to direct the depositary bank to terminate the deposit agreement. Similarly, the depositary bank may in certain circumstances on its own initiative terminate the deposit agreement. In either case, the depositary bank must give notice to the holders at least 30 days before termination.

Upon termination, the following will occur under the deposit agreement:

- For a period of one year after termination, you will be able to request the cancellation of your ADSs and the withdrawal of the shares represented by your ADSs and the delivery of all other property held by the depositary bank in respect of those shares on the same terms as prior to the termination. During this one year period the depositary bank will continue to collect all distributions received on the shares on deposit (i.e., dividends) but will not distribute the property to you until you request the cancellation of your ADSs.
- After the expiration of the one year period, the depositary bank may sell the securities held on deposit. The depositary bank will hold the proceeds from the sale and any other funds then held for the holders of ADSs in a non-interest bearing account. At that point, the depositary bank will have no further obligations to holders other than to account for the funds then held for the holders of ADSs still outstanding.

# **Books of Depositary**

The depositary bank will maintain ADS holder records at its depositary office. You may inspect the records at the office during regular business hours but solely for the purpose of communicating with other holders in the interest of business matters relating to the ADSs and the deposit agreement.

The depositary bank will maintain in New York facilities to record and process the issuance, cancellation, combination, split-up and transfer of ADRs. These facilities may be closed from time to time, to the extent not prohibited by law.

## Limitations on Obligations and Liabilities

The deposit agreement limits Deutsche Telekom's obligations and the depositary bank's obligations to you. Please note the following:

- Deutsche Telekom and the depositary bank are obligated only to take the actions specifically stated in the depositary agreement without negligence or bad faith.
- The depositary bank disclaims any liability for any failure to carry out voting instructions, for any manner in which a vote is cast or for the effect of any vote, provided it acts in good faith and in accordance with the terms of the deposit agreement.
- Deutsche Telekom and the depositary bank will not be obligated to perform any act that is
  inconsistent with the terms of the deposit agreement.

- Deutsche Telekom and the depositary bank disclaim any liability if they are prevented or forbidden from acting on account of any law or regulation, any provision of its Articles of Association, any provision of any securities on deposit or by reason of any act of God or war or other circumstances beyond their control.
- Deutsche Telekom and the depositary bank disclaim any liability by reason of any exercise of, or failure to exercise, any discretion provided for the deposit agreement or in Deutsche Telekom's Articles of Association or in any provisions of securities on deposit.
- Deutsche Telekom and the depositary bank further disclaim any liability for any action or inaction in reliance on the advice or information received from legal counsel, accountants, any person presenting shares for deposit, any holder of ADSs or authorized representative thereof, or any other person believed by either Deutsche Telekom or the depositary bank in good faith to be competent to give the advice or information.
- Deutsche Telekom and the depositary bank also disclaim any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the ADSs, unless indemnity satisfactory to it against expense and liability is furnished.
- Deutsche Telekom and the depositary bank may rely without any liability upon any written notice, request or other document believed to be genuine and to have been signed or presented by the proper parties.

## **Pre-Release Transactions**

The depositary bank may, in certain circumstances, issue ADSs before receiving a deposit of shares or release shares before receiving ADSs. These transactions are commonly referred to as "pre-release transactions." The deposit agreement limits the aggregate size of pre-release transactions and imposes a number of conditions on the transactions (such as the need to receive collateral, the type of collateral required and the representations required from brokers). The depositary bank may retain the compensation received from the pre-release transactions. Full collateralization is a precondition to the pre-release of ADSs or underlying shares.

#### Taxes

You will be responsible for the taxes and other governmental charges payable on the ADRs, the ADSs evidenced by the ADRs and the securities represented by the ADSs. Deutsche Telekom, the depositary bank and the custodian may deduct from any distribution the taxes and governmental charges payable by holders and may sell any and all property on deposit to pay the taxes and governmental charges payable by holders. You will be liable for any deficiency if the sale proceeds do not cover the taxes that are due.

The depositary bank may refuse to issue ADSs, to deliver transfer, split and combine ADRs or to release securities on deposit until all taxes and charges are paid by the applicable holder. The depositary bank and the custodian may take reasonable administrative actions to obtain tax refunds and reduced tax withholding for any distributions on your behalf. However, you may be required to provide to the depositary bank and to the custodian proof of taxpayer status and residence and the other information as the depositary bank and the custodian may require to fulfill legal obligations. You are required to indemnify Deutsche Telekom, the depositary bank and the custodian for any claims with respect to taxes based on any tax benefit obtained for you.

#### Foreign Currency Conversion

The depositary bank will arrange for the conversion into U.S. Dollars of all foreign currency received if the conversion is practical, and it will distribute the U.S. Dollars in accordance with the terms of the deposit agreement. You may have to pay fees and expenses incurred in converting foreign currency, such as fees and expenses incurred in complying with currency exchange controls and other governmental requirements.

If the conversion of foreign currency is not practical or lawful, or if any required approvals are denied or not obtainable at a reasonable cost or within a reasonable period, the depositary bank may take the following actions in its discretion:

- Convert the foreign currency to the extent practical and lawful and distribute the U.S. Dollars to the holders for whom the conversion and distribution is lawful and practical.
- Distribute the foreign currency to holders for whom the distribution is lawful and practical.
- Hold the foreign currency (without liability for interest) for the applicable holders.

# 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 45% (40% since January 1, 1999) on non-distributed profits and of 30% on distributed profits. Since January 1, 1998, the corporate income tax liability has been subject to a 5.5% solidarity surcharge *(Solidaritätszuschlag)*. Because the German corporate tax imputation system does not extend to the surcharge, the corporate income tax and surcharge result in an effective aggregate charge of 32.13% (31.94% since January 1, 1999) instead of 31.65% (30% plus 5.5% thereof) on distributed profits. German 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% surcharge on the German taxpayer's income tax liability. That credit or refund is not available to Non-German Holders.

In addition, a 25% withholding tax (plus a surcharge of 1.375%) 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%. The reduction is granted by way of a refund of the difference between the tax withheld at the statutory rate of 25% 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% 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".

The above-mentioned 5.5% surcharge also applies to the German withholding tax. This surcharge equals 1.375% (5.5% (surcharge) x 25% (statutory rate)) of the gross distribution. Non-German Holders that are entitled to a reduction of the rate of withholding under a tax treaty are entitled to a refund of the difference between the total amount actually withheld, including the surcharge, and the applicable treaty rate.

## **Capital Gains**

Under German domestic tax law, gain which Non-German Holders derive from the sale or other disposition of shares, ADSs, rights or ADS rights is not subject to tax in Germany, provided the Non-

German Holder has not held, directly or indirectly, 10% or more of the shares at any time during the 5year period immediately preceding the disposition.

## Acquisition and Exercise of Rights or ADS Rights

Neither the acquisition nor the exercise of Rights or ADS Rights is a taxable event under German law.

#### 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% or more of such shares or ADSs held directly or indirectly by the donor or transferor himself or together with a related person. 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.

#### Bonus Shares

The German tax treatment of the distribution of bonus shares is not the subject of an unambiguous statutory rule. Within the German tax administration, there are some officials who maintain that the bonus shares are a tax-free rebate of a portion of the purchase price of the shares in respect of which the bonus shares are distributed. Other officials take the view that the bonus shares are taxable income. A consensus on this subject within the tax administration has not yet been reached. You should therefore bear in mind that the receipt of bonus shares may be treated as a dividend and taxed accordingly.

## 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 rights and ADS rights and 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 hold rights, 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 rights, 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 right, ADS right, 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 rights, ADS rights, 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.

#### **Rights and ADS Rights**

A U.S. holder will not be required to include any amount in income for U.S. tax purposes as a result of the receipt of rights or ADS rights, and will not recognize gain or loss upon their exercise or lapse. The basis of rights or ADS rights for U.S. tax purposes will be relevant to a taxable U.S. holder if the holder sells the rights or ADS rights (in which event it will recognize gain or loss measured by the difference between the amount realized and the basis attributed to the rights or ADS rights, determined as described below) or exercises them (in which event the basis of the shares or ADSs acquired upon exercise will include the basis of the rights or ADS rights).

The tax basis of rights or ADS rights for these purposes will be zero, unless either (i) the fair market value of the rights or ADS rights on the date of distribution is at least 15% of the value of the underlying shares or ADSs; or (ii) the holder elects to allocate a portion of its basis in the shares or ADSs to the rights or ADS rights. In either case, basis will be allocated in proportion to the relative fair market values of the shares or ADSs and rights or ADS rights on the date of distribution. An election to allocate basis to rights or ADS rights must be made in the holder's original U.S. federal income tax return for the year of receipt, must apply to all such rights and, once made, is irrevocable.

Gain or loss on the sale or other disposition of rights or ADS rights will be capital gain or loss if the rights or ADS rights were held as capital assets, and will be long-term gain or loss if the rights are deemed to have been held for more than one year. The holding period of a right or an ADS right for this purpose will include the holding period of the underlying share or ADS. The net amount of long-term capital gain realized by an individual holder generally is subject to taxation at a maximum rate of 20%. A U.S. holder's ability to offset capital losses against ordinary income is subject to limitations.

# Bonus Share Program

A U.S. holder will not be required to include any amount in income for U.S. tax purposes as a result of the receipt of bonus shares under the bonus share program. Upon receipt of a bonus share, the holder's basis in the corresponding shares purchased in the rights offering should be reallocated on a pro rata basis among the purchased shares and the bonus share. The holding period for the bonus shares will begin on September 1, 2000.

In the event that the distribution of bonus shares is treated as a dividend for German tax purposes, a U.S. holder's basis in the bonus share and the corresponding shares purchased in the rights offering will include the amount of any German withholding taxes imposed on the distribution. For purposes of the U.S. foreign tax credit limitation, the German taxes will be allocated to "general limitation" income. A U.S. holder that does not receive sufficient foreign-source general limitation income may not be able to derive effective foreign tax credit benefits in respect of those German taxes.

## Shares and ADSs

## Dividends

Dividends paid by German corporations generally are subject to German withholding tax at an aggregate rate of 26.375% (consisting of a 25% withholding tax and a 1.375% 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% of the declared dividend. The Treaty provides that a portion of this payment (i.e., 11.375% 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%, and the remainder of the payment (i.e., 5% of the declared dividend) will be treated as the net amount of an additional dividend of 5.88% of the declared dividend of 100, a U.S. holder initially will receive 73.625 (100 minus the 26.375% 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% 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.

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% 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, in the example above, in respect of an aggregate dividend of 105.88, a U.S. holder would be deemed to have paid German taxes of 15.88. 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 includible 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 Depositary, 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 Depositary 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 Depositary. 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 requires 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%. 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.

For purposes of determining the amount of gain or loss, the tax basis of a share or ADS required upon exercise of a right or ADS right will equal the sum of the tax basis for the right or ADS right and the price paid for the share or ADS (translated into U.S. dollars at the exchange rate in effect on the date of purchase), subject to adjustment as discussed above in the event bonus shares or ADSs are awarded. The holding period of such a share or ADS will begin with and include the date of exercise of the right or ADS right. A U.S. holder that exercises an ADS right may be required to recognize foreign currency gain or loss if the U.S. dollar/Euro exchange rate changes (i) between the date the ADS subscription agent converts the official subscription price into Euros and the date the final subscription price is paid to Deutsche Telekom or (ii) while a deficiency owed to the subscription agent is outstanding.

## 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 transferors'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 rights, 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% 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.

# PLAN OF DISTRIBUTION

Deutsche Telekom has entered into an agreement with the joint global coordinators for the combined offering to offer shares and ADSs for subscription to shareholders in the rights offering and to reoffer them to other investors in the global offering. The proposed underwriters and Deutsche Telekom are expected, subject to certain conditions, to enter into an underwriting agreement on or before June 25, 1999, for the offer and sale of shares and ADSs in the combined offering.

If the underwriting agreement is not signed, the combined offering will terminate, even with respect to rights that have been effectively exercised. If the combined offering is terminated, purchasers of rights in the secondary market may suffer a loss upon the rights acquired becoming worthless. See "The Rights Offering—Termination of Capital Increase."

All of the underwriters may sell shares in the rights offering. The European retail underwriters will offer shares to retail investors who are natural persons in the pan-European retail offering. The international underwriters will offer shares in the public offerings in the United States and Japan and to institutional investors around the world. Each international underwriter may offer and sell shares anywhere in the world where it is legally permitted to do so. Sales of shares in the United States will be effected through a U.S. selling group. There are no minimum or maximum limits on how many shares may be offered or sold in any particular country or region. Subject to certain conditions, each of the underwriters named below is expected to offer shares in the rights offering and to agree severally to purchase shares for sale in the combined offering.

# European Retail Underwriters

Deutsche Bank Aktiengesellschaft Dresdner Bank Aktiengesellschaft Goldman, Sachs & Co. oHG Bayerische Landesbank Girozentrale Bayerische Hypo- und Vereinsbank AG Westdeutsche Landesbank Girozentrale ABN AMRO Rothschild Banca d'Intermediazione Mobiliare IMI S.p.A. BBV Interactivos, S.A., S.V.B. CA IB Investmentbank Aktiengesellschaft Société Générale DG BANK Deutsche Genossenschaftsbank AG COMMERZBANK Aktiengesellschaft Landesbank Baden-Württemberg Banque Nationale de Paris Norddeutsche Landesbank Girozentrale BHF-BANK Aktiengesellschaft Trinkaus & Burkhardt KGaA Sal. Oppenheim jr. & Cie. Kommanditgesellschaft auf Aktien M.M. Warburg & CO Kommanditgesellschaft auf Aktien Bankgesellschaft Berlin Aktiengesellschaft

B. Metzler seel. Sohn & Co. Kommanditgesellschaft auf Aktien Baden-Württembergische Bank Aktiengesellschaft Banco de Negocios Argentaria, S.A. Banca Commerciale Italiana S.p.A. Banca di Roma S.p.A. CABOTO SIM SPA CISF-Banco de Investimento S.A. Banque Bruxelles Lambert S.A. Banque Générale du Luxembourg Société Anonyme Crédit Agricole Indosuez **CCF** Charterhouse Erste Bank der oesterreichischen Sparkassen AG KBC Bank & Verzekeringen N.V. Merita Bank Plc Raiffeisen Zentralbank Österreich Aktiengesellschaft Banco Santander de Negocios S.A. NCB Stockbrokers Limited UniCredito Italiano S.p.A.

### International Underwriters

Deutsche Bank Aktiengesellschaft Dresdner Bank Aktiengesellschaft Goldman Sachs International ABN AMRO Rothschild Credit Suisse First Boston (Europe) Limited Merrill Lynch International COMMERZBANK Aktiengesellschaft DG BANK Deutsche Genossenschaftsbank AG Warburg Dillon Read AG Banca d'Intermediazione Mobiliare IMI S.p.A. Daiwa Europe Limited Morgan Stanley & Co. International Limited J.P. Morgan Securities Ltd. Salomon Brothers International Limited Paribas Société Générale Banque Nationale de Paris Bayerische Landesbank Girozentrale Bayerische Hypo- und Vereinsbank AG Westdeutsche Landesbank Girozentrale HSBC Investment Bank plc Nomura International plc Bear, Stearns International Limited Toronto Dominion Bank CA IB Investmentbank Aktiengesellschaft Banca Commerciale Italiana S.p.A. UniCredito Italiano S.p.A. BBV Interactivos, S.A., S.V.B.

The international underwriters may choose to take some or all of their shares in the global offering in the form of ADSs. The members of the U.S. selling group are: Deutsche Bank Securities Inc., Dresdner Kleinwort Benson North America LLC, Goldman, Sachs & Co., ABN AMRO Incorporated, Credit Suisse First Boston Corporation, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Commerzbank Capital Markets Corporation, Warburg Dillon Read LLC, a subsidiary of UBS AG, Daiwa Securities America Inc., Morgan Stanley & Co. Incorporated, J.P. Morgan Securities Inc., Salomon Smith Barney Inc., Paribas Corporation, SG Cowen Securities Corporation, BNP Capital Markets, LLC, WestLB Panmure Securities Inc., HSBC Securities Inc., Nomura Securities International, Inc., Bear, Stearns & Co. Inc., TD Securities (USA) Inc., and BBV Securities Inc.

The respective underwriting commitments of the underwriters, the per share and total underwriting discounts and commissions and the reallowance to dealers will be set forth in a supplement to this prospectus.

The underwriting agreement will provide that the obligations of the underwriters to purchase shares may be terminated under certain circumstances, until 5:00 p.m. on June 29, 1999, including the occurrence of certain *force majeure* events. The underwriting agreement will further provide that the obligations of the underwriters may be terminated if registration in the Commercial Register of the capital increase in an amount of up to  $\in$  640,000,000 does not occur by June 25, 1999.

If the underwriters sell more shares than the total number offered in the combined offering, the underwriters will have an option to buy up to an additional 29,969,388 million shares from Deutsche Telekom to cover such sales. They may exercise that option until July 31, 1999. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion purchased in the combined offering. The international underwriters may choose to take some or all of their additional shares in the form of ADSs.

The joint global coordinators will also enter into a share lending agreement with the Federal Republic which will provide that the joint global coordinators may borrow shares up to an amount equal to the maximum number covered by the over-allotment option plus additional shares solely to satisfy delivery obligations in respect of syndicate short positions created in connection with the distribution of the shares until such short positions are covered either through the exercise of the underwriters' over-allotment option or through open market purchases. This option to borrow shares may be exercised at any time until July 31, 1999. Under this agreement, borrowed shares up to an amount equal to the maximum number covered by the over-allotment option must be returned by July 31, 1999, provided that registration of the capital increase relating to the underwriters' over-allotment option has occurred.

Deutsche Bank Aktiengesellschaft, Dresdner Bank Aktiengesellschaft and Goldman, Sachs & Co. are joint global coordinators of the combined offering. Deutsche Telekom will determine the initial price to public and the final allocation to investors in agreement with the joint global coordinators. Deutsche Bank Aktiengesellschaft, Dresdner Bank Aktiengesellschaft and Goldman, Sachs & Co. oHG are the joint lead managers and Dresdner Bank Aktiengesellschaft is the regional bookrunner for the pan-European retail offering. Deutsche Bank Aktiengesellschaft, Dresdner Bank Aktiengesellschaft and Goldman Sachs International are joint lead managers and joint bookrunners for the international offering.

Shares sold by the underwriters in the rights offering will initially be offered at the official subscription price set forth on the cover of this prospectus. Shares sold by the underwriters in the global offering will initially be offered at the initial price to public to be determined at the end of the bookbuilding period. The maximum offer price in the global offering and the maximum subscription price in the rights offering equal €45. Shareholders and ADS holders who acquire shares or ADSs in the rights offering and private retail investors holding accounts with one of the banks participating in the pan-European retail offering and who subscribe early in the pan-European retail offering will be entitled to a discount. The actual price to be paid in the rights offering and the initial price to public in the global offering is expected to be available by calling toll free in the United States 1-800-697-3837 or by logging on at http://www.telekom.de/us-offer. If the shares, other than shares sold at a discount in the rights offering and the pan-European retail offering and the pan-European retail offering to be available by calling toll sold at the initial price to public, the joint global coordinators may change the offering price and the other selling terms.

For reasons of German law, the joint global coordinators will initially subscribe for all of the shares on behalf of the underwriters, at a subscription price equal to their notional par value. This subscription price will be credited against the amount due from the underwriters at the closing.

Deutsche Telekom has agreed with the underwriters that before June 2000 it will not, directly or indirectly, dispose of or announce the offering of any ordinary shares or preference shares of Deutsche Telekom out of authorized capital *(genehmigtes Kapital)* or any other securities which are convertible into or exchangeable for ordinary shares or preference shares of Deutsche Telekom. Deutsche Telekom has also agreed for this period that until that date it will not initiate a capital increase other than for the purposes of issuing shares to employees or directors, in order to pay a stock dividend *(Kapitalerhöhung aus Geschäftsmitteln)* or, subject to certain conditions and restrictions, in connection with an acquisition or joint venture. Similar restrictions also apply to derivatives transactions that would have an economic effect similar to that of a sale of Deutsche Telekom's ordinary shares or preference shares. In each case these restrictions may be waived if the joint global coordinators consent to the proposed transaction in writing.

The Federal Republic and KfW have agreed with Deutsche Telekom not to sell their Deutsche Telekom shares before June 2000. Deutsche Telekom expects to consider requests from the Federal Republic and KfW for clearance to dispose of Deutsche Telekom shares by means of exchangeable debt offerings after December 31, 1999.

In connection with the offering, the underwriters may purchase and sell shares, ADSs, rights or warrants in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the shares, ADSs, rights or warrants while the offering is in progress.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the shares, ADSs, rights or warrants. As a result, the price of these securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on any of the exchanges where the shares, ADSs, rights and warrants are listed, in the over-the-counter market or otherwise.

It is general market practice in Germany for underwriters to maintain an orderly market in existing shares and rights to acquire shares, and it is expected that the underwriters will take measures to avoid extreme price fluctuations in the shares and rights to acquire shares during the distribution period and thereafter. As a result of these activities, the underwriters may at any time have a significant short position or long position with respect to the shares or other securities which are convertible into or exchangeable for shares. To the extent that the underwriters incur a short position in the shares, or in other securities which are convertible into or exchangeable for shares. To the over-allotment option or by open market purchases by the underwriters. To the extent that the underwriters incur a long position, it may be liquidated at any time.

Prior to the expiry of the period of six months from the date of the purchase of the shares by the underwriters no shares may be offered or sold in the United Kingdom except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances that have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995 (the "Regulations"). All applicable provisions of the Regulations and the Financial Services Act 1986 must be complied with in respect of anything done in relation to any shares in, from or otherwise involving the United Kingdom. No document issued in connection with the issue of any shares may be issued or passed on in the United Kingdom to a person, unless the person is of a kind described in Article 11(3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996 or is a person to whom the document may otherwise lawfully be issued or passed on. Deutsche Telekom has not authorized any offer of shares to the public in the United Kingdom within the meaning of the Regulations. The shares may not lawfully be offered or sold to persons in the United Kingdom except in circumstances that do not result in an offer to the public in the United Kingdom within the meaning of the Regulations or otherwise in compliance with all applicable provisions of the Regulations.

The Company estimates that its share of the total expenses of the combined offering, excluding underwriting discounts and commissions, will be approximately €270,000,000.

The rights will be listed and traded on the Frankfurt Stock Exchange. The warrants will be listed and traded on the NYSE.

The Company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

Some of the underwriters have from time to time performed services for Deutsche Telekom and have normal banking relationships with Deutsche Telekom in the ordinary course of their business. Goldman, Sachs & Co. oHG and Dresdner Bank Aktiengesellschaft have been advising Deutsche Telekom on the proposed business combination with Telecom Italia.

## THE RIGHTS OFFERING

If you hold Deutsche Telekom shares you are entitled to subscribe for new shares. If you hold ADSs representing Deutsche Telekom ordinary shares you are entitled to subscribe for new ADSs. The cover of this prospectus shows the official subscription prices for the new shares and new ADSs.

If you held ADSs on the record date for determining whether you are entitled to receive new ADSs, you will receive transferable warrants evidencing the right to subscribe for ADSs, instructions for exercising the warrants and this prospectus. The procedures for you to subscribe for new shares and ADSs and information about the purchase and sale of rights to subscribe for new shares and ADSs are summarized below.

# Subscription by Holders of Ordinary Shares

This timetable lists some dates that may be important to you if you hold Deutsche Telekom shares and want to participate in the rights offering:

Beginning of the period during which you can subscribe for new shares	June 10, 1999
The date on which your rights to subscribe for new shares start trading on the Frankfurt Stock	
Exchange	June 10, 1999
The last time for delivery to your custodian bank of	
instructions that you want to participate in the rights	
offering	10:00 a.m. (Frankfurt time), June 21, 1999
Trading of subscription rights ends	1:30 p.m. (Frankfurt time), June 21, 1999
The end of the period during which you can subscribe	
for new shares and the time the rights expire	11:59 p.m. (Frankfurt time), June 23, 1999
The date by which the bookbuilding for the global	
offering ends	June 25, 1999
The latest date for pricing of the global offering	June 27, 1999
Payment date for the new shares	June 30, 1999
New shares delivered as soon as practicable after	June 30, 1999

If you hold Deutsche Telekom shares you may subscribe for new shares as follows:

**Entitlement.** Each outstanding ordinary share will entitle you to one right to subscribe for new shares. Fractional rights in denominations of 1/1000 of a right will trade on the Frankfurt Stock Exchange. If you have 9.8 rights, you will be entitled to subscribe for one new share at the official subscription price on the cover of this prospectus. You might, however, ultimately pay less than the official subscription price. If the market price of the shares on the XETRA system of Deutsche Börse AG at the close of the last day of the bookbuilding period, or the initial price to public for the shares in the global offering, is lower than the official subscription price, the subscription price will be reduced to the lowest of these amounts. You will therefore pay the lowest of the official subscription price, the subscription price and the initial price to public. You will also be entitled to a discount of  $\in$ 2.00 per share subtracted from the lowest of these prices. You can determine the actual amount you will be required to pay by calling toll free in the United States 1-800-697-3837 or logging in to http://www.telekom.de/us-offer from 10:00 a.m. (New York City time) on June 27, 1999. Deutsche Telekom will also publish these prices on or about June 28, 1999 in The Wall Street Journal.

If you are a rights holder, your custodian bank in Germany will, at your request, purchase additional rights (including fractional rights) for you to give you enough rights to subscribe for one or more whole

new shares. You may subscribe for whole new shares only. Deutsche Telekom will not issue any fractional new shares. You may otherwise use your rights as you see fit.

Method of Subscription and Payment. You will receive from your custodian bank a copy of the offer for subscription for new shares, a statement telling you the number of rights you are entitled to exercise and a letter requesting instructions about whether you want to exercise or sell your rights. You may exercise your rights by delivering a properly completed and signed instruction letter to the custodian bank by mail or by hand. Deposit in the mail is not enough. If you fail to return the instruction letter to your custodian bank before the deadline, the custodian bank will sell your rights for you on a best-efforts basis, unless you have made other arrangements with the custodian bank. It will remit the proceeds from the sale to your account. You may pay the subscription price in Euros by delivering (by mail or by hand) a certified check to that custodian bank, by money transfer using a money transfer order to a bank account of that custodian bank or, if you have a bank account with that custodian bank, by authorizing that custodian bank to deduct the full amount of the subscription price from your bank account at the custodian bank.

In all cases the custodian bank must receive payment of the full subscription price on or before the payment date for the new shares. You must draw certified checks and money transfer orders on a Euro account at a bank or savings institution in the European Union or in any other jurisdiction where shares trade. You should make your certified check or money transfer order payable to or name as payee the custodian bank. You will not receive interest if you pay before the payment date for the new shares.

You will elect the method of delivering instruction letters and paying the subscription price, and you will bear any risk associated with it. If you send instruction letters or payments by mail, you should use registered mail, properly insured, with return receipt requested, and allow enough time to ensure delivery of the instruction letters before the rights expire and delivery and clearance of payment before the payment date for the new shares.

The underwriters will determine all questions about the timeliness, validity, form and eligibility of exercising rights. Their determinations will be final and binding. The underwriters will offer the new shares to existing stockholders, including the custodian for the ADSs, in accordance with § 186(5) of the German Stock Corporation Law. Deutsche Telekom may decide to waive a defect or irregularity, or permit you to correct a defect or irregularity within the time it determines. Instruction letters will not be considered received or accepted until Deutsche Telekom has waived all irregularities or you have cured them in time. Neither Deutsche Telekom nor the custodian bank has to notify you of any defect or irregularity in submitting instruction letters. They will not incur any liability for failing to do so.

**Partial Exercise of Rights.** If you hold shares and wish to subscribe for or transfer only a portion of the new shares you have the right to subscribe for or to transfer your rights to more than one person, you must complete the appropriate instructions in the instruction letter to be returned to your custodian bank. You may not, however, subscribe for or transfer any fractional shares.

If you deliver a completed and properly signed instruction letter you will be irrevocably exercising the related rights. You may not cancel or modify the exercise. By delivering the instruction letter, you will be promising to pay the subscription price by the payment date for the new shares.

**Purchase and Sale of Rights.** You may exercise, sell or transfer rights to others through banks in Germany and through banks or brokers in other jurisdictions outside the United States and Canada where ordinary shares trade, except Japan where rights issuable in respect of ordinary shares trading on the Tokyo Stock Exchange will be sold for cash and the proceeds remitted to their owners. Deutsche Telekom ordinary shares trade on all German stock exchanges and on the stock exchange in Tokyo and through SEAQ International.

You may place an order with your custodian bank either:

1. to purchase any number of rights for your account, whether or not you are exercising a subscription, or

2. to sell rights for your account, whether or not you are exercising a subscription.

The custodian bank must receive your order before 10:00 a.m. (Frankfurt time) on June 21, 1999. You must instruct your custodian bank in writing to purchase or sell rights. You may, before the date on which the rights expire, instruct the custodian in writing to exercise rights. If the custodian bank does not receive instructions before the applicable time, your rights will be treated as unexercised.

**Unexercised Rights.** If you do not deliver a letter to your custodian bank by 10:00 a.m. on June 21, 1999 the custodian bank will sell your rights for you on a best-efforts basis. The underwriters will sell new shares which remain unsubscribed for after the time the rights expire (or for which you have not delivered payment in full by the payment date for the new shares) in the global offering.

**Delivery of New Shares.** You should receive delivery of the new shares you subscribed for through a credit of the new shares to your securities custody account. New shares will rank equally in all respects with existing shares. We have paid our dividend in respect of financial year 1998, so you will not participate in that dividend as a holder of new shares.

# Subscription by Holders of ADSs

This timetable lists some dates that may be important to you if you hold ADSs and want to participate in the rights offering:

Record date for determining whether you are entitled to receive new ADSs	5.00 p.m. (New York City time), June 7, 1999
Beginning of the period during which you can	
subscribe for new ADSs	June 10, 1999
Trading of rights to subscribe for new ADSs (on a "regular way" basis) begins on the New York	
Stock Exchange	June 10, 1999
The date on which your rights to subscribe for new	
ADSs become separated from your existing	lune 11 1000
ADSs	June 11, 1999
Trading of ADS subscription rights ends	4:00 p.m. (New York City time), June 21, 1999
The end of the period during which you can	
subscribe for new ADSs and the time the	
warrants expire and the ADS subscription agent	
must receive your warrants	5:00 p.m. (New York City time), June 22, 1999
The date by which bookbuilding for the global	
offering ends	June 25, 1999
The latest date for pricing of the global offering	June 27, 1999
The date the ADS subscription agent must receive	
your payment of the subscription price	June 28, 1999
Certificates for new ADSs mailed as soon as	
practicable after	June 30, 1999

The following is a summary of the important provisions of the rights agent agreement between Deutsche Telekom and Citibank, N.A., as ADS subscription agent, under which you will receive warrants. This summary is not complete. For a complete description, you should read the rights agent agreement, which is filed as an exhibit to the registration statement of which this prospectus is a part.

If you hold ADSs, you may subscribe for new ADSs representing new Deutsche Telekom shares as follows:

*Warrants.* Transferable warrants evidence the ADS rights. If you are a holder of ADSs you will receive warrants. Each ADS you held of record on the record date entitles you to receive one right to subscribe for new ADSs. You will receive only whole numbers of ADS rights. The ADS subscription

agent will aggregate fractional ADS rights and sell them for you if you would have otherwise been entitled to receive them. If you have 9.8 ADS rights, you will be entitled to subscribe for one new ADS at the official subscription price described on the cover of this prospectus. You might, however, ultimately pay less than the official subscription price. If the market price of the Deutsche Telekom shares on the XETRA system of Deutsche Börse AG at the close of the last day of the bookbuilding period or the initial price to public of the Deutsche Telekom shares in the global offering, in each case translated into U.S. Dollars at the Noon Buying Rate on the last day of the bookbuilding period, is lower than the official subscription price, the price you are required to pay will be reduced to the lower of these prices. You will therefore pay the lowest of the official subscription price, the market price and the initial price to public, in each case less a discount per ADS of the U.S. Dollar equivalent of €2.00 converted at the noon buying rate on the last day of the bookbuilding period. You can determine the amount you are actually required to pay by calling toll free in the United States 1-800-697-3837 or logging in to http://www.telekom.de/us-offer from 10:00 a.m. (New York City time) on June 27, 1999. Deutsche Telekom will also publish these prices on or about June 28, 1999 in the Bundesanzeiger and the Börsen-Zeitung in Germany and in The Wall Street Journal in the United States. The ADS subscription agent will, at your written request, either:

- 1. purchase ADS rights for your account, whether or not you are subscribing for new ADSs, or
- 2. sell ADS rights for your account, whether or not you are subscribing for new ADSs.

You may subscribe for whole new ADSs only. You will not receive any fractional new ADSs. You may otherwise exercise your ADS rights as you see fit.

*Warrant Expiration Date.* If you validly exercise a warrant on time it will be considered a valid exercise of the rights the ADS subscription agent holds to subscribe for the Deutsche Telekom ordinary shares underlying the new ADSs you will receive when you exercise your warrant.

**ADS Subscription Agent.** Citibank, N.A., 111 Wall Street, 5th Floor, New York, New York 10043, which is the "Depositary" for the ADSs under Deutsche Telekom's deposit agreement, is acting as the ADS subscription agent.

**Method of Subscription and Payment.** You can exercise your ADS rights by delivering, by mail or otherwise, to the ADS subscription agent a properly signed warrant instructing the ADS subscription agent whether you want to exercise or sell your ADS rights. By delivering a warrant, you agree to pay in full the official subscription price described on the cover of this prospectus for each new ADS you are subscribing for in the rights offering. The ADS subscription agent may refuse any improperly completed or delivered or unsigned warrant. Depositing a warrant in the mail is not enough.

You may pay the subscription price for the new ADSs in U.S. Dollars by certified check or bank draft, payable to "Citibank, N.A.—A/C Deutsche Telekom AG" until June 28, 1999. However, because you will not be able to determine the amount you are actually required to pay until 10:00 a.m. (New York City time) on June 27, 1999, at the earliest, to mitigate the risk of a settlement default, you may wish to pay the ADS subscription agent an estimated subscription price earlier. For that purpose, you may pay the lower of the official subscription price per new ADS described on the cover of this prospectus, or 105% of the closing market price of the shares on June 21, 1999, translated in either case into U.S. Dollars at the Noon Buying Rate on the relevant date. The ADS subscription agent will pay the appropriate subscription amount in U.S. Dollars to Deutsche Telekom. The ADS subscription agent will consider that it has received the subscription price only upon receiving a certified check or a bank draft. If the estimated subscription price or final subscription price is not received by June 28, 1998, your subscription will not be valid.

The ADS Subscription Agent will obtain the actual subscription price as soon as practicable on June 27, 1999. If there is any excess or deficiency because of a difference between the price you paid and the actual subscription price the ADS subscription agent will refund promptly the excess to you or bill you for the deficiency in each case without interest. You must pay in U.S. Dollars if you are subscribing for new ADSs. You must pay in Euros if you are subscribing for new shares.

Paying the estimated subscription price early should result in your receiving a refund, but you may not. If your payment is less than the actual subscription price for the number of new ADSs you are subscribing for when you exercise your ADS rights, the ADS subscription agent will pay the amount of your deficiency to Deutsche Telekom. You will then have to pay promptly the amount of the deficiency (including expenses) and will not receive any new ADSs you subscribed for until the ADS subscription agent receives your payment. If you do not pay the amount of the deficiency to the ADS subscription agent by July 6, 1999, the ADS subscription agent may sell enough of your new ADSs to cover the amount of the deficiency. The ADS subscription agent would then send you promptly a new ADR representing the remaining new ADSs and a check in the amount of any excess proceeds from the sale. If, however, the amount of excess proceeds from the sale of your new ADSs is less than US\$5.00, the ADS subscription agent will aggregate it and pay it to Deutsche Telekom.

If you hold ADS rights through DTC, you should deliver completed subscription instructions for new ADSs through DTC's PSOP and WARI/WARR Functions on the "agent subscriptions over PTS" procedure. You must instruct DTC to charge to your DTC account the U.S. Dollar subscription price for each new ADS you are subscribing for and to deliver the amount to the ADS subscription agent. DTC will not debit your settlement account until after the actual subscription price is determined. Accordingly, if you hold ADS rights through DTC, DTC will debit your account in the amount of the actual subscription price on June 28, 1999. The ADS subscription agent must receive all warrants for the new ADSs you are subscribing for by the time the warrants expire unless you properly comply with the guaranteed delivery procedures described below.

If you desire to subscribe and time will not permit your warrants to reach the ADS subscription agent before the time the warrants expire, you may still subscribe if, at or before the time the warrants expire, the ADS subscription agent has received a properly completed and signed notice of guaranteed delivery, substantially in the form provided with the Instructions As to Use of Warrants Representing ADS Rights of Deutsche Telekom AG distributed with the warrants, from a financial institution that is a member of the Securities Transfer Agents Medallion Program (STAMP), the Stock Exchange Medallion Program (SEMP) or the New York Stock Exchange Inc. Medallion Signature Program (MSP). The ADS subscription agent must also receive payment in good funds in full of the actual subscription price or the estimated subscription price on or before June 28, 1998. The notice of guaranteed delivery must state your name and the number of new ADSs you are subscribing for and must irrevocably guarantee that the warrant will be:

1. properly completed and signed, and

2. delivered by one of those financial institutions to the ADS subscription agent before 5:00 p.m. (New York City time) on June 25, 1999.

You may deliver the notice of guaranteed delivery by hand, transmit it by facsimile or mail it to the ADS subscription agent. If you hold your ADS rights through DTC, your DTC participant must deliver the notice of guaranteed delivery to the ADS subscription agent through DTC's confirmation system. If the financial institution fails to deliver a properly completed and signed warrant before June 25, 1999, the ADS subscription agent will sell the ADSs issued in connection with the failed guarantee and will pay you, from the proceeds of the sale, the aggregate subscription price you paid to the ADS subscription agent (without interest) after deducting any loss and expenses it incurred from the failed guarantee. The total amount of the deduction may not exceed the proceeds of the sale. If the proceeds of the sale exceed the amount payable to you, the ADS subscription agent will be entitled to retain the excess proceeds.

You will elect the method of delivering warrants and notices of guaranteed delivery and paying the subscription price to the ADS subscription agent, and you will bear any risk associated with it. If you send warrants, notices of guaranteed delivery or payments by mail, you should use registered mail, properly insured, with return receipt requested, and allow sufficient time to ensure delivery to the ADS subscription agent and clearance of payment before the appropriate time. Because you will not be able to determine the actual subscription price until June 27, 1999, and the ADS subscription agent must receive your cleared payment by June 28, 1999, if you are paying the actual subscription price you should arrange for hand delivery of a certified check or bank draft on that date. For further information, you should contact Citibank at 1-877-Citi-ADR. To avoid the risk of failed settlement, you may wish to pay the estimated subscription price early as described above.

The ADS subscription agent will determine all questions about the timeliness, validity, form and eligibility of exercising ADS rights. Deutsche Telekom may waive any defect or irregularity, or permit you to correct a defect or irregularity within the time it determines. Warrants will not be considered received or accepted until Deutsche Telekom has waived all irregularities or you have cured them in time. Neither Deutsche Telekom nor the ADS subscription agent has to notify you of any defect or irregularity in submitting warrants. They will not incur any liability for failing to do so.

**Partial Exercise of ADS Rights.** If you wish to subscribe for or transfer only a portion of the new ADS you are entitled to subscribe for with your ADS rights or to transfer your ADS rights, you must follow the instructions in the instruction booklet delivered with this prospectus. You should remember that you may subscribe for whole new ADSs only. You will not receive any fractional new ADSs.

If you deliver a properly completed warrant (or comply with the guaranteed delivery procedures), you will irrevocably exercise the related ADS rights. You may not cancel or modify the exercise. By delivering the warrant (or complying with the guaranteed delivery procedure) without paying the subscription price you will be promising to pay the subscription price by June 28, 1999.

*Purchase and Sale of ADS Rights.* You may exercise, sell or transfer your ADS rights to others. You may buy or sell your ADS rights through the ADS subscription agent, banks or brokers. The ADS rights should trade on the New York Stock Exchange.

If you hold ADS rights you may place an order with the ADS subscription agent either:

- 1. to buy ADS rights, whether or not you are subscribing for ADSs, or
- 2. to sell ADS rights, whether or not you are subscribing for ADSs.

The ADS subscription agent must receive the orders before 10:00 a.m. (New York City time) on June 21, 1999. You must instruct the ADS subscription agent in writing to purchase or sell ADS rights, or you may, before the time the warrants expire, instruct the ADS subscription agent in writing to exercise ADS rights. With respect to any such purchases, you will be required to pay to the ADS subscription agent, at the time of such purchase, an amount equal to the opening price of the ADS rights on June 10, 1999. If there is any excess or deficiency because of a difference between the opening price of the ADS rights on June 10, 1999 and the weighted average price for such purchases during the subscription period, as described below, the ADS subscription agent will refund promptly the excess in U.S. dollars to you or bill you for the deficiency, in each case without interest. If the ADS subscription agent is to sell only a portion of the ADS rights that a single warrant evidences, the warrant must include instructions setting forth the action to be taken with the ADS rights the ADS subscription agent is not selling. If you do not deliver a properly completed and signed warrant before the time the warrants expire, your ADS rights will be considered unexercised, except where you

comply with the guaranteed delivery procedures. If you do not pay the actual or estimated subscription price by June 28, 1999, your ADS rights will also be considered unexercised. The ADS subscription agent has advised Deutsche Telekom that it intends to match purchase and sale orders where possible or, to the extent not possible, place purchase and sale orders with a broker it approves. The ADS subscription agent need only execute purchase and sale orders for the ADS rights if it is able to do so. Charges and credits upon purchases and sales of ADS rights, including matched orders on each day the ADS subscription agent buys and sells rights, will be:

1. at the average of market prices for ADS rights bought or sold through the ADS subscription agent in the open market during the subscription period, and

2. if no ADS rights are bought or sold in the open market through the ADS subscription agent, the weighted average price for the ADS rights on the exchange on which ADS rights trade during the subscription period as reported by Bloomberg L.P.

Accordingly, these trades may not be at the best available price. The ADS subscription agent will not be liable to you for failing to obtain the best price for any ADS rights it buys or sells under your orders. The ADS subscription agent will not charge you for buying or selling ADS rights to enable you to round out your ADS rights to purchase an additional whole new ADS without having ADS rights left over. You will receive a bill for any ADS rights the ADS subscription agent buys or a check for the proceeds from any ADS rights the ADS subscription agent sells, net of fees and commissions, as promptly as possible following the expiration date. The ADS subscription agent will only charge you fees and commissions for purchases and sales of ADS rights to the extent it is required to place an order with the designated broker because it cannot match all purchase and sale orders on a given day. The fee for any order will be the greater of (1) US\$25.00 or (2) US 0.5¢ per ADS rights it bought or sold. The ADS subscription agent will allocate the fee pro rata to the holders of all ADS rights it bought and sold during the subscription period whether by matching or through the brokerage transaction. Instead of sending you a bill or a check, the ADS subscription agent may apply any amounts you owe to the ADS subscription agent against any amount the ADS subscription agent owes you, or any amounts the ADS subscription agent owes you against any amounts you owe the ADS subscription agent.

If you wish to purchase additional ADSs you may wish to contact your broker. If you wish to sell or transfer ADS rights you will need to complete FORM 3 on the back of the warrant (with any required signature guarantees) and deliver it to your commercial bank or broker, if the commercial bank or broker is making the sale, or directly to a third-party transferee. See Instructions 2 and 3 of the instruction booklet.

**Overseas Holders of ADSs.** The ADS subscription agent will not mail you warrants if you have a record address outside the United States (including if your address indicates that you are on military or other government service outside the United States). The ADS subscription agent will hold those warrants for you. You may sell the ADS rights, if by 10:00 a.m. (New York City time) on June 21, 1999, you instruct the ADS subscription agent to do so, and you may exercise the ADS rights if, by the time the warrants expire, you instruct the ADS subscription agent to do so. If you do not deliver instructions before those times, your ADS rights will be considered unexercised and will expire.

**Unexercised ADS Rights.** The ADS subscription agent will transfer ADS rights allocated to you that you do not validly exercise by the time the warrants expire for your account. The underwriters will sell new shares which remain unsubscribed for after the time the warrants expire (or for which the ADS subscription agent does not receive payment as described above by June 28, 1999), in the global offering.

**Delivery of ADRs.** You will not receive the new ADSs you subscribed for when you exercised your ADS rights until the ADS subscription agent has received any shortfall you may owe from payment of the estimated subscription price. If you are using a notice of guaranteed delivery to

exercise your ADS rights you will not receive ADRs representing new ADSs until after the financial institutions have delivered to the ADS subscription agent the warrants to which the notice of guaranteed delivery relates. New ADSs will rank equally in all respects with existing ADSs. We have paid our dividend in respect of financial year 1998, so you will not participate in that dividend as a holder of new ADSs.

## Exchange Privilege

At any time before 5:00 p.m. (New York City time) on June 16, 1999, if you hold warrants you may surrender a number representing any whole number of ADS rights to the ADS Subscription Agent at its New York office (Citibank, N.A., 111 Wall Street, 5th Floor, New York, New York 10043), and the ADS Subscription Agent will, not later than the close of business on the following business day, make available to you (or your assignee) at Citibank AG, Neue Mainzer Strasse 75, 60311 Frankfurt/Main, Germany, appropriate documents to subscribe for new shares at the subscription price per new share.

If you are depositing a warrant for exchange you must pay any applicable fees of the depositary and any taxes or levies associated with the surrender of the warrant and the deposit of the new shares with the depositary or the issuance of new ADS.

#### **Termination of the Capital Increase**

Deutsche Telekom and the global coordinators reserve the right to terminate or postpone the planned capital increase. Circumstances under which this might occur include turbulence in the international capital markets, force majeure, failure to register the capital increase in the Commercial Register by June 25, 1999 or insufficient demand for the shares offered in the combined offering.

The rights and ADS rights will lapse if the capital increase is terminated before registration of the capital increase in the Commercial Register. In this case, trades in the rights that took place before termination would not be unwound, and investors that purchased rights in the market could suffer a corresponding loss.

If Deutsche Telekom or the joint global coordinators exercise their right to terminate the global offering after the capital increase has been registered in the Commercial Register, those shareholders that have effectively exercised subscription rights are entitled to receive new shares or ADSs.

# LEGAL MATTERS

Pünder, Volhard, Weber & Axster, German counsel to Deutsche Telekom will pass upon the validity of the shares for Deutsche Telekom and Hengeler Mueller Weitzel Wirtz, German counsel to the underwriters will pass upon the validity of the shares for the underwriters. Cleary, Gottlieb, Steen & Hamilton will pass upon certain legal matters in connection with the ADSs for Deutsche Telekom and Sullivan & Cromwell will pass upon certain legal matters in connection with the ADSs for the underwriters. Cleary, Gottlieb, Steen & Hamilton may rely on Pünder, Volhard, Weber & Axster and Sullivan & Cromwell may rely on Hengeler Mueller Weitzel Wirtz, without independent verification, regarding certain German legal matters.

# INDEPENDENT PUBLIC ACCOUNTANTS

C&L Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Olof-Palme-Straße 35, 60439 Frankfurt am Main, Germany, independent public accountants, have audited the consolidated financial statements of Deutsche Telekom at December 31, 1997 and 1998 and for each of the three years in the period ended December 31, 1998 included in this prospectus, including the notes to those financial statements, as stated in their report.

## AVAILABLE INFORMATION

Deutsche Telekom furnishes to Citibank, N.A., as depositary under Deutsche Telekom's American depositary receipt program, annual reports in English which include a review of operations and annual audited consolidated financial statements prepared in accordance with generally accepted accounting principles in Germany, together with a reconciliation of net income and total shareholders' equity to generally accepted accounting principles in the United States. Deutsche Telekom also furnishes the depositary with semi-annual reports in English, which include unaudited semi-annual consolidated financial information prepared in accordance with German GAAP. The depositary arranges for the mailing of these reports to all registered holders of ADSs. Deutsche Telekom also furnishes to the Depositary summaries in English or an English version of all notices of shareholders' meetings and other reports and communications that are made generally available to shareholders. The depositary arranges for the mailing of these documents to record holders of ADSs.

Deutsche Telekom is subject to the reporting requirements of the Securities Exchange Act of 1934 applicable to foreign private issuers. In accordance with the Exchange Act, Deutsche Telekom files reports, including annual reports on Form 20-F and interim reports on Form 6-K, and other information with the Securities and Exchange Commission. You may obtain these reports and other information by sending a written request to Citibank, as depositary, at its Corporate Trust Office located at 111 Wall Street, New York, New York 10005. You may also inspect and copy these reports and other information at prescribed rates at the public reference facilities maintained by the Commission located at 7 World Trade Center, Suite 1400, Chicago, Illinois 60661-2511. You may obtain information on the operation of the public reference room in the United States by calling the Commission at 1-800-SEC-0330. You may also inspect certain reports and other information concerning Deutsche Telekom at the offices of the New York Stock Exchange, 11 Wall Street, New York, New York 10005. As a foreign private issuer, Deutsche Telekom is not subject to the proxy rules in Section 14 or the short-swing insider profit disclosure rules of Section 16 of the Securities Exchange Act of 1934.

Deutsche Telekom has filed with the Commission a registration statement on Form F-3 under the Securities Act of 1933. This prospectus does not contain all the information in the registration statement, some parts of which are omitted in accordance with the rules and regulations of the Commission. For further information, you should refer to the registration statement.

# **INCORPORATION BY REFERENCE**

The Commission allows Deutsche Telekom to "incorporate by reference" the information it files with the Commission in other documents, which means:

- incorporated documents are considered part of this prospectus;
- Deutsche Telekom can disclose important information to you by referring you to those documents; and
- information in this prospectus automatically updates and supersedes information in earlier documents that are incorporated by reference in this prospectus, and information that Deutsche Telekom files with the Commission after the date of this prospectus automatically updates and supersedes this prospectus.

Deutsche Telekom incorporates by reference its Annual Report on Form 20-F for the year ended December 31, 1998, which was filed with the Commission on April 15, 1999. Deutsche Telekom also incorporates by reference each of the following documents that it will file with the Commission after the date of this prospectus from now until it terminates the offering of the shares:

- Reports filed under Section 13(a), 13(c) or 15(d) of the Exchange Act; and
- any future reports filed on Form 6-K that indicate that they are incorporated by reference in this prospectus.

Neither Deutsche Telekom's Report on Form 6-K filed with the Securities and Exchange Commission on April 23, 1999 nor any other previously filed report on Form 6-K is incorporated herein by reference.

You may obtain a copy of any of the documents referred to above (excluding exhibits) at no cost by contacting Deutsche Telekom at the following address:

Deutsche Telekom AG Friedrich-Ebert-Allee 140 53113 Bonn, Germany Tel.: 00 49 228 181 8896 (Investor Relations)

# DEUTSCHE TELEKOM

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## 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, 1997 and 1998 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, 1998. 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, 1997 and 1998, 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, 1998 in conformity with generally accepted accounting principles in Germany.

As discussed in the section "summary of significant accounting principles" in the notes to the consolidated financial statements, Deutsche Telekom AG originally prepared and reported its consolidated financial statements as of December 31, 1998, in DM. For the convenience of the reader, these consolidated financial statements have been restated into Euro using the official conversion rate of Euro 1 = DM 1.95583.

Application of accounting principles generally accepted in the United States would have affected shareholders' equity as of December 31, 1997 and 1998 and net income for each of the years in the three year period ended December 31, 1998 to the extent summarized in Note 37 to the consolidated financial statements.

Frankfurt am Main, March 24, 1999

C&L Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

Dickmann Wirtschaftsprüfer Laue Wirtschaftsprüfer

## CONSOLIDATED STATEMENT OF INCOME

	Note	1998	1997	1996
		millions of Euro	millions of Euro	millions of Euro
Net revenue	(1)	35,719	34,539	32,250
Changes in inventories and other own capitalized costs	(2)	990	1,514	1,766
Total operating performance		36,709	36,053	34,016
Other operating income	(3)	2,069	1,915	1,997
Goods and services purchased	(4)	(6,798)	(6,205)	(5,228)
Personnel costs	(5)	(9,170)	(9,377)	(9,601)
Depreciation and amortization	(6)	(9,037)	(9,509)	(9,026)
Other operating expenses	(7)	(5,385)	(5,195)	(4,834)
Financial income (expense), net	(8)	(3,288)	(4,003)	(3,944)
Results from ordinary business activities		5,100	3,679	3,380
Extraordinary income (losses)	(9)	—		(1,266)
Taxes	(10)	(2,654)	(1,844)	(1,132)
Income after taxes		2,446	1,835	982
(Income) losses applicable to minority shareholders	(11)	(203)	(146)	(83)
Net income	(12)	2,243	1,689	899
Unappropriated net income carried forward from previous year		6	1	46
Transfer to retained earnings		(553)	—	(103)
Unappropriated net income (unappropriated net income of				
Deutsche Telekom AG)		1,696	1,690	842
Earnings per share in Euro		0.82	0.62	0.43

## CONSOLIDATED BALANCE SHEET

	Note	Dec. 31, 1998 millions of Euro	Dec. 31, 1997 millions of Euro
Assets			
Noncurrent assets	(12)	1 001	957
Intangible assets Property, plant and equipment	(13) (14)	1,081 59,793	857 65,374
Financial assets	(14)	5,646	3,824
	(10)		
Current ecceto		66,520	70,055
Current assets Inventories, materials and supplies	(16)	595	655
Receivables	(17)	4,118	4,209
Other assets	(18)	725	765
Marketable securities	(19)	1,370	1,836
Liquid assets	(20)	5,086	4,733
•		11,894	12,198
Prepaid expenses, deferred charges and deferred taxation	(21)	877	994
	(= · )	79,291	83,247
		79,291	03,247
Shareholders' equity and liabilities			
Shareholders' equity	(22)		
Capital stock	(23)	7,014	7,014
Additional paid-in capital	(24)	14,250	14,250
Retained earnings (deficit)	(25)	1,339 1,696	921 1,690
Minority interest	(26)	765	741
	(20)		
		25,064	24,616
Accruals			
Pensions and similar obligations	(27)	3,130	3,095
Other accruals	(28)	5,224	4,571
		8,354	7,666
Liabilities	(29)		
Debt	(20)	39,933	44,938
Other		5,547	5,491
		45,480	50,429
Deferred income		393	536
		79,291	83,247
		19,291	

## CONSOLIDATED NONCURRENT ASSETS

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		A	cquisition or	product	ion cos	t			Deprecia	ation, amortiza	ation an	d write	-downs			arrying ount
		Translation adjustment	Changes in the composition of the Deutsche Telekom group			Reclassi- fications	Dec. 31, 1998		Translation adjustment				Reclassi- fications		Dec. 31, 1998	, Dec. 31, 1997
Intangible assets								millions	s of Euro							
Concessions, industrial and similar rights and assets, and licenses in such rights and assets	1,277	(12)	(1)	427	118	170	1,743	648	(4)	(1)	387	100	0	930	813	629
from individual company financial statements arising from consolidation Advance payments	1 271 50 1,599	<u> </u>	0 0 0 (1)	0 13 88 528	0 0 1 119	0 (18) 152	1 258 119 2,121	0 94 0 742	(9) 0		0 25 0 412	$ \begin{array}{c} 0\\ 0\\ 0\\ \hline 100 \end{array} $		0 110 0 1,040	1 148 119 1,081	177
Property, plant and	1,599	(30)	<u>(1</u> )						(13)	<u>(</u> )	412			1,040	1,001	
equipment Land and equivalent rights, and buildings including buildings on land owned by third		()														
parties Technical equipment and	19,848	(30)	0	223	139	109	20,011	1,695	(4)	0	675	12	0	2,354	17,657	18,153
machinery	64,347	(223)	(6)	2,636	1,340	1,390	66,804	21,071	(56)	(7)	7,186	689	201	27,706	39,098	43,276
office equipment	4,347	(30)	0	583	174	(417)	4,309	1,953	(11)	(1)	746	149	(201)	2,337	1,972	2,394
Advance payments and construction in progress	1,551	(15)	0	818	36	(1,234)	1,084	0	0	0	18	0	0	18	1,066	1,551
	90,093	(298)	(6)	4,260	1,689	(152)	92,208	24,719	(71)	(8)	8,625	850	0	32,415	59,793	65,374
Financial assets Investments in unconsolidated subsidiaries Loans to unconsolidated	9	0	4	13	0	0	26	6	0	0	4	0	0	10	16	3
subsidiaries	15	0	12	3	5	0	25	0	0	0	21	0	0	21	4	15
companies	899	(169)	0	272	265	(2)	735	306	(86)	0	171	1	0	390	345	593
Other investments in related companies	1,878	0	0	1,652	96	2	3,436	39	0	0	12	22	0	29	3,407	1,839
Long-term loans to associated and related companies	184	0	0	176	106	0	254	1	0	0	10	10	0	1	253	183
Other investments in noncurrent securities Other long-term loans	619 572		0	618 4	185 7	0	1,052 569	0 0		0 0	0	0 0	0	0	1,052 569	
	4,176		16	2,738	664	0	6,097	352		0	218	33	0	451	5,646	
	95,868	(505)	9	7,526	2,472	0	100,426	25,813	(170)	<u>(9)</u>	9,255	983	0	33,906	66,520	70,055

## CONSOLIDATED STATEMENT OF CASH FLOWS

	Note	1998	1997	1996
		millions of Euro	millions of Euro	millions of Euro
Net income		2,243	1,689	899
Income applicable to minority shareholders		203	146	83
Income after taxes		2,446	1,835	982
Depreciation and amortization		9,037	9,509	9,026
Income tax expense		2,477	1,512	708
Net interest expense		2,962	3,256	3,717
Net losses from the disposition of noncurrent assets		516	596	525
Personnel restructuring accrual		35	(123)	710 135
Results from associated companies		382	777	284
Other noncash income		(50)	(41)	(216)
(Increase)/decrease in trade accounts receivable		5	(215)	(152)
(Increase)/decrease in inventories		57	`124 <sup>´</sup>	`145 <sup>´</sup>
Increase/(decrease) in trade accounts payable		246	(388)	(84)
Changes in other current assets and liabilities		211	(72)	789
Income taxes paid		(2,012)	(1,827)	(1,107)
Dividends received		110	88	78
Cash generated from operations		16,422	15,031	15,540
Interest paid		(3,403) 472	(3,755) 300	(4,486) 327
Net cash provided by operating activities	(30)	13,491	11,576	11,381
Capital expenditures	()	(4,791)	(6,791)	(8,633)
Purchase of subsidiaries, associated and related companies,				
net of cash acquired Proceeds from sale of noncurrent assets		(2,733) 715	(801) 329	(2,669) 335
Net change in short-term investments and marketable				
securities		(701)	1,729	(2,064)
Other		(1)	130	83
Net cash used for investing activities	(31)	(7,511)	(5,404)	(12,948)
Change in short-term borrowing		(4,780)	(5,513)	(5,507)
Issuance of medium and long-term debt.		1,595	136	(74.2)
Repayments of medium and long-term debt      Dividends		(1,830) (1,764)	(817) (841)	(712) (619)
Changes in minority interests		(1,704)	(0+1)	(013)
Proceeds from share offering				10,300
Net cash (used for) provided by financing activities	(32)	(6,797)	(7,035)	3,514
Effect of foreign exchange rate changes on cash and cash				
equivalents		6	(3)	
Net increase (decrease) in cash and cash equivalents		(811)	(866)	1,947
Cash and cash equivalents, at beginning of year Cash and cash equivalents, at end of year		2,875 2,064	3,741 2,875	1,794 3,741
Liquid assets as shown in the balance sheet		2,004	2,010	0,7 - 1
Cash and cash equivalents, Dec. 31,		2,064	2,875	3,741
Temporary cash investments, Dec. 31,		3,022	1,858	5,387
Total		5,086	4,733	9,128

	Shares issued and	Capital		Difference		Other		Retain	gs	
	outstanding (in	stock nominal	Additional paid-in	from currency	Treasury	retained earnings		Unappro- priated net		
millions of Euro	thousands)	value	capital	translation	stock	(deficit)	Total	income	interest	Total
Balance at Jan. 1, 1996 Changes in the composition of the	2,000,000	5,113	5,774	(167)		1,263	1,096	660	3	12,646
Deutsche Telekom group Dividends for 1995 Shares issued from								(614)	585 (5)	585 (619)
retained earnings Proceeds from share	30,000	77				(77)	(77)			—
offering	713,700	1,824	8,476							10,300
for treasury stock Net income Difference from					1	(1) 103	 103	796	83	 982
currency translation				(12)	_		(12)		(56)	(68)
Balance at Dec. 31, 1996	2,743,700	7,014	14,250	<u>(179</u> )	_1	1,288	1,110	842	610	23,826
Changes in the composition of the Deutsche Telekom group Dividends for 1996				38	_		38	(841)	34	72 (841)
Net income Difference from currency translation				(227)			(227)	1,689	146 (49)	1,835 (276)
Balance at Dec. 31, 1997	2,743,700	7,014	14,250	(368)	1	1,288	921	1,690	741	24,616
Changes in the composition of the Deutsche Telekom				<u>(666)</u>	÷					
group Dividends for 1997 Net income Difference from						553	553	(1,684) 1,690	(17) (73) 203	(17) (1,757) 2,446
currency translation				(135)	_		(135)		(89)	(224)
Balance at Dec. 31, 1998	2,743,700	7,014	14,250	(503)	1	1,841	1,339	1,696	765	25,064

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## Summary of accounting policies

#### Description of business and relationship with the Federal Republic of Germany

The Deutsche Telekom group (Deutsche Telekom) is a full-service telecommunications provider whose major lines of business include providing telephone network communications, mobile communications, broadband cable and broadcasting services for television and radio stations, special value-added services as well as international activities. Deutsche Telekom also supplies and services terminal equipment and publishes telephone directories.

Deutsche Telekom's principal business is providing telecommunications services, comprising more than 90% of total operating revenues, operating profits and identifiable assets. Deutsche Telekom's business is conducted predominantly in Germany and is, therefore, within a single geographic area for reporting purposes.

As part of Postreform II (second reform of German posts and telecommunications), Deutsche Bundespost TELEKOM, which operated as a public enterprise until the end of 1994, was transformed into a stock corporation at the beginning of 1995. The new company, Deutsche Telekom AG, was registered with the Commercial Registry of the Bonn District Court (Amtsgericht-HRB 6794) on January 2, 1995. In November 1996, Deutsche Telekom AG made an initial public offering increasing both the number of shares issued and outstanding as well as the number of shareholders. The Federal Republic of Germany (the Federal Republic), formerly the sole shareholder of Deutsche Telekom AG, did not participate in the capital increase, and its shareholding fell to approximately 74% of the shares. In January and November 1998, the Federal Republic transferred a 24.6% shareholding in Deutsche Telekom AG to a federal corporation, the Kreditanstalt für Wiederaufbau (KfW). As a result, the Federal Republic's direct shareholding as of December 31, 1998 amounts to approximately 49.4%. The Federal Republic administers its shareholding and exercises its rights as a shareholder through a public law entity, the Bundesanstalt für Post und Telekommunikation Deutsche Bundespost (the Federal Agency), which, following the dissolution of the Federal Ministry of Posts and Telecommunications (BMPT) on December 31, 1997, is subject to supervision by the Federal Ministry of Finance (BMF).

The Regulatory Authority for Telecommunications and Posts (the Regulatory Authority) commenced its activities on January 1, 1998. The Regulatory Authority, which is under the authority of the Federal Ministry of Economics (BMW), has thus taken the place of the dissolved Federal Ministry of Posts and Telecommunications in supervising the telecommunications sector in Germany, and in this capacity regulates the business activities of Deutsche Telekom.

The Federal Republic and various government departments and agencies are collectively Deutsche Telekom's largest customer. Charges for services provided to the Federal Republic and such departments and agencies are based on Deutsche Telekom's commercial pricing policies. Services provided to any one department or agency do not represent a significant component of Deutsche Telekom's net revenues.

## Summary of significant accounting principles

The annual financial statements and the management report of the Deutsche Telekom group have been prepared in accordance with the requirements of the German Commercial Code (Handelsgesetzbuch—HGB) and German Stock Corporation Law (Aktiengesetz—AktG).

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

Until December 31, 1998 Deutsche Telekom prepared and reported its consolidated financial statements in Deutsche Mark ("DM"). With the introduction of the Euro (" $\in$ ") on January 1, 1999. Deutsche Telekom has begun to report financial information in Euro. Thus, solely for the convenience of the reader, the accompanying consolidated financial statements as of and for the three year period ended December 31, 1998, have been restated into Euro using the official conversion rate of  $\in 1 =$  DM 1.95583. Deutsche Telekom's financial statements, restated in Euro, depict the same trends as would have been presented if it had continued to present its consolidated financial statements in DM. The Group's consolidated financial statements will, however, not be comparable to the Euro financial statements of other companies that previously reported their financial information in a currency other than Deutsche Mark.

The listing of its shares on the New York Stock Exchange in November 1996 and the related requirement for Deutsche Telekom to file financial statements with the U.S. Securities and Exchange Commission (SEC) have led the Company to prepare its consolidated financial statements in conformity with international financial reporting norms. Accordingly, the Company uses accounting and valuation principles in line with those of U.S. GAAP (generally accepted accounting principles—GAAP) applicable at the balance sheet date, provided options exist under German GAAP to permit such an approach. This also serves to minimize differences between results reported in the reconciliation of German GAAP to U.S. GAAP.

The contents of these consolidated financial statements differ from financial statements prepared in accordance with U.S. GAAP only in those instances where the accounting and disclosure requirements of the HGB cannot be conformed to U.S. GAAP. These differences between German GAAP and U.S. GAAP are shown in a separate reconciliation.

Whereas the HGB requires only one year of comparative figures for the statement of income, the SEC requires the two previous years. The SEC also requires three years of cash flow statements and statements of shareholders' equity.

The consolidated balance sheet and the consolidated statement of income are prepared in accordance with the classification requirements of § 298 HGB, in combination with § 266 and § 275 HGB. The income statement is prepared using the total cost method. All amounts shown, except per share amounts, are in millions of Euro (€). Certain items have been combined in order to enhance the informative value and understanding of the consolidated financial statements. These items are shown separately in the notes. In case of changes in presentation, prior year amounts are reclassified to conform with the current year presentation. In accordance with the recent change of § 297 paragraph 1 sentence 2 HGB, the consolidated accounts also include a consolidated statement of cash flows and a segment report; in addition, the consolidated accounts also include a consolidated statement of shareholders' equity. In conformity with international practice, reporting begins with the income statement, and the statement of cash flows and the statement of shareholders' equity precede the notes to the consolidated financial statements.

The consolidated financial statements are prepared in accordance with uniform accounting and valuation principles. The accounting policies used in the consolidated financial statements differ from those used in the parent company's unconsolidated financial statements. Such differences, mostly applied to conform with U.S. GAAP, include the following:

—Property, plant and equipment leased under contracts for which the risks and rewards of ownership have been assumed are capitalized. Scheduled depreciation is recorded over the useful economic life of the asset or over the term of the lease. The present value of payment obligations resulting from future lease payments are included as liabilities.

- Interest incurred while items included in property, plant and equipment were under construction has been added to construction costs.
- —Direct pension obligations are measured in accordance with SFAS No. 87 and No. 88, using valuation methods consistent with those used for indirect pension obligations in the unconsolidated financial statements of Deutsche Telekom AG. The increase in the average life expectancy is taken into account in the measurement of all pension obligations in the consolidated financial statements.
- —In the measurement of the compensation obligations to the Civil Service Health Insurance Fund (Postbeamtenkrankenkasse), the additional accruals required according to the new 1998 life expectancy tables by Prof. Klaus Heubeck ("Richttafeln 1998") were recorded in the 1998 financial year, thus fully affecting net income. In contrast to the unconsolidated financial statements of Deutsche Telekom AG, where the accruals are spread over 4 financial years, this accrual was made in full in the 1998 consolidated financial statements.
- Accruals for the internal costs of preparing annual financial statements are not recorded.
- -Investment grants received are recorded as reductions of the acquisition costs of assets.

The financial statements of Deutsche Telekom AG as well as the financial statements of the Deutsche Telekom group, which have an unqualified audit opinion from C&L Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, are published in the Federal Gazette (Bundesanzeiger) and filed under HRB 6794 with the Commercial Registry of the Bonn District Court. This annual report and the Annual Report on Form 20-F, filed with the SEC due to Deutsche Telekom's listing on the NYSE, are available upon request from Deutsche Telekom AG, Bonn, Investor Relations.

## **Consolidated group**

The consolidated financial statements are comprised of the accounts of Deutsche Telekom AG and its subsidiaries.

The subsidiaries, associated companies and other related companies have been included in the consolidated financial statements in accordance with the following criteria:

- —Subsidiaries are companies in which Deutsche Telekom directly or indirectly has majority voting rights or management control.
- —Associated companies are companies in which Deutsche Telekom directly or indirectly holds between 20% and 50% of the voting rights and exercises a significant influence. Such companies are generally included in the consolidated financial statements using the equity method.
- —Companies in which Deutsche Telekom holds less than 20% of the voting rights are carried in the consolidated financial statements at the lower of acquisition cost or market value and classified as other investments in related companies.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of  $\in 1 = DM 1.95583$ 

The changes in the composition of the Deutsche Telekom group in 1998 are presented in the following table:

	Domestic	International	Total
Consolidated subsidiaries			
Jan. 1, 1998	34	35	69
Additions	2	4	6
Disposals	3	8	11
Reclassifications	(1)	(2)	(3)
Dec. 31, 1998	32	29	61
Associated companies included at equity			
Jan. 1, 1998	37	18	55
Disposals	8	1	9
Reclassifications	<u>(10</u> )	(1)	(11)
Dec. 31, 1998	19	16	35
Other unconsolidated subsidiaries and other investments in related companies (greater than 20 %)			
Jan. 1, 1998	17	20	37
Additions	19	7	26
Disposals	—	6	6
Reclassifications	11	3	14
Dec. 31,1998	47	24	71
Total			
Jan. 1, 1998	88	73	161
Additions	21	11	32
Disposals	11	15	26
Reclassifications	_		
Dec. 31, 1998	98	69	167

The consolidated financial statements include the individual company financial statements of the parent company, Deutsche Telekom AG, as well as 32 (Dec. 31, 1997: 34) domestic and 29 (Dec. 31, 1997: 35) foreign subsidiaries in which Deutsche Telekom AG has a direct or indirect controlling interest. In contrast to the previous year (Dec. 31, 1997: 9 subsidiaries), no subsidiaries are included in the group financial statements using the equity method in the 1998 financial year.

The changes in the composition of the Deutsche Telekom group have not had a material effect on the 1998 group financial statements.

Thirty-six (Dec. 31, 1997: 21) subsidiaries were not included because they were not material to the net worth, financial position and results of the Deutsche Telekom group. These subsidiaries accounted for less than 1 % of consolidated revenue, results and balance sheet total of the Deutsche Telekom group.

In accordance with § 311 paragraph 1 HGB, 35 (Dec. 31, 1997: 46) companies over which Deutsche Telekom exercises significant influence have been classified as associated companies and are accounted for using the equity method.

Thirty-five (Dec. 31, 1997: 16) associated companies which have little or no effect on the net worth, financial position and results of the Deutsche Telekom group were classified as other investments in related companies at acquisition cost less applicable write-downs.

The full list of investment holdings is filed with the Commercial Registry of the Bonn District Court (HRB 6794). It is available upon request from Deutsche Telekom AG, Bonn, Investor Relations.

## Principal subsidiaries and associated companies

The principal subsidiaries and associated companies whose revenues and results, together with Deutsche Telekom AG, account for more than 90% of the Group are shown in the table below:

Name and registered office	Deutsche Telekom share Dec. 31, 1998	Shareholders' equity Dec. 31, 1998	Revenue	Income after taxes 1998	Employees 1998
	(%)	millions of Euro	millions of Euro	millions of Euro	(Annual average)
Subsidiaries	()				<b>3</b> ,
DeTe Immobilien, Deutsche Telekom					
Immobilien und Service GmbH, Münster	100.00	153	3,929	88	10,529
DeTeMobil Deutsche Telekom MobilNet	100.00	4 4 4 7	0.007	000	5.040
GmbH, Bonn	100.00	1,447	3,837	283	5,613
Budapest, Hungary(1)(2)	59.58	1,066	1,334	289	17,535
DeTeSystem Deutsche Telekom					
Systemlösungen GmbH,					
Frankfurt/Main	100.00	51	1,717	33	1,577
T-Data Gesellschaft für Datenkommunikation	100.00	107	100		
mbH, Bonn	100.00	497	460	69	571
DeTeMedien, Deutsche Telekom Medien	100.00	07	254	77	24.0
GmbH, Frankfurt/Main Deutsche Telekom Online Service GmbH,	100.00	27	351	77	310
Darmstadt	100.00	36	323	13	516
DeTeLine Deutsche Telekom	100.00	50	525	15	510
Kommunikationsnetze GmbH, Berlin	100.00	27	217	3	725
DeTeCSM Deutsche Telekom Computer	100.00		2.17	0	120
Service Management GmbH, Darmstadt	100.00	243	814	80	2,543
DeTeKabelService Deutsche Telekom Kabel		2.0	0		2,010
Service Gesellschaft mbH, Bonn(1)	99.78	70	135	15	334
Associated companies					
Atlas Telecommunications S.A.,					
Brussels, Belgium(1)	50.00	135	817	(442)	2,705
Technology Resources Industries Berhad,					
Kuala Lumpur, Malaysia(1)	20.99	225	404	(5)	4,958
PT Satelit Palapa Indonesia Satelindo					
Jakarta, Indonesia	25.00	(36)	181	(123)	1,680
Isla Communications Co., Inc., Makati City,				()	
Manila, Philippines(3)	10.42	74	21	(55)	1,329
Asiacom Philippines, Inc., Makati City,	10.00	10	0	(24)	
Manila, Philippines	49.88	48	0	(31)	
Other companies					
Sprint Corporation, Westwood, Kansas, USA(1)	10.00	10,648	15,412	373	64,900
France Telecom S.A.,	10.00	10,040	10,412	5/5	04,900
Paris, France(1)(4)	2.00	14,287	23,903	2,267	165,042
	2.00	17,201	20,000	2,201	100,042

(1) Consolidated subgroup financial statements

(2) Held through MagyarCom Holding GmbH, Bonn (Deutsche Telekom AG share: 50%)

(3) Held directly by Deutsche Telekom AG, additional indirect holding through Asiacom (share: 28.87%)

(4) 1997 financial year

## **Consolidation principles**

**Capital consolidation** is performed following the book value method under German GAAP. Under this method, the purchase consideration for an acquisition is allocated to the assets and liabilities acquired based on their fair values. Any resulting excess of the purchase consideration over the parent's interest in the fair value of net assets acquired is capitalized as goodwill and amortized over its useful life. Negative goodwill from capital consolidation is included under other accruals.

Profits or losses generated by subsidiaries during their period of affiliation with the Group are included in retained earnings (deficit). The unappropriated net income reported in the consolidated financial statements represents the unappropriated net income of Deutsche Telekom AG. Accordingly, the effects of consolidation and the net income of subsidiaries are included in retained earnings (deficit).

Revenue, income and expenses as well as receivables and liabilities between the consolidated companies are eliminated. **Intercompany profits and losses** and income effects from the **consolidation of intercompany debt** are eliminated in the consolidated financial statements.

The consolidated balance sheets include deferred taxes resulting from the effects of consolidation, provided the tax expense is expected to reverse in later years except where the effects of consolidation relate to the parent company during the periods prior to the end of 1995, when it was essentially exempt from taxation.

The investments in associated companies included at equity are accounted for using the book value method by applying Deutsche Telekom's uniform principles of valuation. This method is similar to the method described above for consolidated subsidiaries. The principles used for full consolidation are also applied in treating the differences resulting from the initial consolidation. It was not necessary to eliminate intercompany profits and losses with associated companies, as they were insignificant.

Joint ventures are included in the consolidated financial statements using the equity method.

#### Foreign currency translation

In the individual company financial statements, foreign currency receivables, cash in banks and liabilities are translated at the exchange rate applicable on the transaction date. Unrealized foreign currency losses due to exchange rate fluctuations through the balance sheet date are recognized in the income statement while unrealized foreign currency gains are not recognized. Where foreign currency items have been hedged by forward exchange contracts, they are valued at the corresponding hedge rate.

Currency translation of foreign subsidiaries is made in accordance with the functional currency method. Thus, the functional currency is the currency in which the foreign subsidiary performs its principal operations. The activities and financial structure as reported in this currency should be reflected in the group accounts. Generally, the functional currency of dependent subsidiaries is identical with that of the parent company. Dependent subsidiaries are translated according to the temporal method. On the other hand, the functional currency of independent subsidiaries is the local currency. Currently all consolidated foreign subsidiaries of Deutsche Telekom conduct their operations independently of the parent company, therefore currency translation is performed according to the modified current rate method.

Therefore, in the consolidated financial statements, the translation of all items shown in balance sheets of foreign subsidiaries from foreign currencies into DM is performed using middle rates on the balance sheet date. Gains and losses resulting from translation are recorded, without affecting net income, in retained earnings (deficit).

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

The income statements of foreign subsidiaries are translated at the average annual exchange rates.

The exchange rates of certain significant currencies are as follows:

	Average annual rate			Rate at balance sheet date			
	1998 DM	1997 DM	1996 DM	Dec. 31, 1998 DM	Dec. 31, 1997 DM		
100 Belgian Francs (BEF)	4.8476	4.8464	4.8592	4.8483	4.8478		
100 Swiss Francs (CHF)	121.4138	119.5045	121.8850	122.2000	123.2500		
1 ECU (XEU)	1.9727	1.9585	1.8837	1.9620	1.9790		
100 French Francs (FRF)	29.8291	29.7049	29.4070	29.8180	29.8830		
1 Pound Sterling (GBP)	2.9142	2.8412	2.3478	2.7980	2.9820		
100 Hungarian Forints (HUF)	0.8202	0.9301	0.9862	0.7738	0.8795		
100 Indonesian Rupiah (IDR)	0.0181	0.0631	0.0646	0.0209	0.0319		
100 Japanese Yen (JPY)	1.3482	1.4379	1.3838	1.4505	1.3838		
100 Singapore Dollars (SGD)	105.1300	117.0160	106.7900	100.8440	106.9950		
100 Malaysian Ringgit (MYR)	44.9550	62.7530	59.5745	44.0230	46.4110		
100 Philippine Pesos (PHP)	4.2820	5.9559	5.7384	4.2723	4.4305		
1 U.S. Dollar (US\$)	1.7592	1.7348	1.5037	1.6730	1.7921		

#### Accounting and valuation

**Net revenues** consist of goods and services sold in connection with the ordinary business activities of Deutsche Telekom. Net revenues are recorded net of VAT and sales-related reductions. Revenues due from foreign carriers for international incoming calls are included in revenues in the period in which the calls occur. Revenues from other operating activities are recognized in the period when earned by the delivery of goods or the rendering of services.

#### Research and development costs are expensed as incurred.

**Pension costs** for defined benefit plans are actuarially computed using the Projected Unit Credit Method, which is consistent with SFAS No. 87 and No. 88, and are shown in accordance with SFAS No. 132. This method presupposes the total present value of the benefit obligations accumulated during the reporting period and takes into consideration the expected increases in wages and salaries and in retirement benefits. By contrast, the minimum accrual method in accordance with § 6a of the German Income Tax Act (Einkommensteuergesetz) is aimed at the recognition of the expense over the employees' entire working lives and does not take the expected increases in wages and salaries and in retirement benefits into account.

Pension costs include current service cost, interest cost, return on plan assets and amortization of actuarial gains/losses and prior service costs. In addition, the impact of the 1997 realignment of the company pension plan on net income had to be taken into consideration in accordance with SFAS No. 88. The pension costs are accrued in the balance sheet in accordance with SFAS No. 88 and No. 132, whereby the accrual is increased by the expense recognized and decreased by payments made during the year.

The Company is required to make contributions to a pension fund for current and former civil servant employees in annual amounts established by Postreform II, which came into force in 1995, rather than by annual actuarial valuations. The amounts currently due in each period are recognized as an expense in that period.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

#### Advertising costs are charged to expenses as incurred.

**Income tax expense** includes current payable taxes on income as well as deferred income taxes. Deferred income taxes are recorded for the expected future tax effects attributable to temporary differences in the balance sheets prepared for tax reporting and for financial reporting purposes, except for the effects of those differences that are not expected to reverse in the foreseeable future. Such differences may arise at the individual taxable entity level as well as in consolidation.

Deferred taxes on temporary differences relating to Deutsche Telekom AG have not been included in the consolidated financial statements for periods prior to January 1, 1996 as Deutsche Telekom AG was not taxable prior to January 1, 1995 and benefited from an essentially complete exemption from tax in 1995.

**Earnings per share** for each period are calculated by dividing net income by the weighted average number of ordinary bearer shares outstanding during that period. The weighted average number of ordinary bearer shares in 1996 was ascertained after giving effect to the issuance of shares by way of an increase in capital stock from retained earnings on July 31, 1996.

Purchased **intangible assets** are valued at acquisition cost and are amortized on a straight-line basis over their estimated useful lives. Acquired goodwill, including goodwill resulting from capital consolidation, is amortized on a straight-line basis over its useful life.

As permitted by Postreform II, **property, plant and equipment** transferred to Deutsche Telekom AG on January 1, 1995 was recorded in the opening balance sheet of Deutsche Telekom AG at fair market values at that date. However, due to the short period of time between the acquisition dates and January 1, 1995, property, plant and equipment acquired during 1993 and 1994 was valued at its remaining book value. The remaining useful lives and the depreciation methods applicable to these assets were not changed. The fair market values shown in the opening balance sheet have been carried forward as the acquisition costs.

Other property, plant and equipment is valued at acquisition or construction cost, less scheduled depreciation. Construction costs include directly allocable costs, an appropriate allocation of material and production overhead and interest accruing during construction. However, general administration expenses are not capitalized.

Property, plant and equipment includes nondeductible capitalized VAT amounts at the level of expected refunds from VAT adjustments pursuant to § 15a of the German Value-Added Tax Act (Umsatzsteuergesetz - UStG) resulting from Deutsche Telekom's full liability for VAT as of 1996. Capitalized VAT is depreciated over a period of four years, starting in 1996.

Nonscheduled write-downs are provided when an impairment in the value of assets occurs. In order to increase the informative value of the financial statements, accelerated depreciation recorded in the individual company financial statements for tax purposes has not been recognized in the consolidated financial statements.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

Depreciation of noncurrent assets is carried out using the straight-line method over the following useful lives:

	Years
Intangible assets	3 to 4
Goodwill	5 to 12
Buildings	
Office and residential buildings	50
Telecommunications buildings and towers	25 to 30
Workshop buildings, outdoor installations and facilities	10
Telephone facilities and terminal equipment	3 to 10
Data communications equipment, telephone network and ISDN switching equipment,	
transmission equipment, radio transmission equipment and technical equipment for	
broadband distribution networks	5 to 20
Broadband distribution networks, outside plant networks and cable conduit lines	15 to 20
Telecommunications power facilities and other	3 to 10
Other equipment, plant and office equipment	3 to 20

Additions to real estate property are depreciated beginning in the month the building is placed into service. For assets other than buildings acquired in the first half of a year, a full year of depreciation is provided in the year of acquisition and, for those assets acquired in the second half of the year, a half year of depreciation is provided.

Items with a low acquisition cost are expensed in the year of purchase.

Maintenance and repairs are charged to expenses when incurred.

Upon sale or disposal of noncurrent assets, the related cost and accumulated depreciation are removed from the balance sheet, and a gain or loss is recognized for the difference between the proceeds from the sale and the net carrying amount of the assets.

**Financial assets** are valued at the lower of cost or market value. Low-interest or non-interest bearing loan receivables are recorded at net present value. Nonscheduled write-downs are provided only if impairment of financial assets is assumed to be permanent.

Raw materials and supplies, and merchandise purchased and held for resale are valued at acquisition cost, while work in process and finished goods are stated at production cost. Based on normal capacity utilization, production cost includes directly allocable costs such as material and labor costs as well as special production costs plus an appropriate allocation of material and production overhead and straight-line depreciation. General administration and selling costs, social amenities expenses as well as voluntary benefits to personnel including pensions are not included in production cost. The carrying amount of inventories is reduced to the lower of cost or market value at the balance sheet date. To the extent that inventory values are impaired, obsolescence provisions are made.

**Receivables and other assets** are shown at their nominal value. Known individual risks are accounted for through appropriate individual valuation adjustments, and general credit risks through general valuation adjustments of receivables. Low-interest and non-interest bearing items with more than one year remaining to maturity are discounted.

**Marketable securities** are stated at the lower of cost or market value at the balance sheet date.

**Pension obligations** are calculated using actuarial methods in accordance with the internationally accepted Projected Unit Credit Method, which is consistent with U.S. GAAP (SFAS No. 87 and No. 88), and are shown in accordance with SFAS No. 132.

**Provisions for taxes** and **other accruals** including those for loss contingencies and environmental liabilities are recorded using best estimates. Sufficient allowance was made for all possible risks when assessing these provisions and accruals.

Deferred taxes are calculated for the expected tax effects of temporary differences between the balance sheets prepared for financial reporting and tax reporting purposes, as well as for the temporary differences arising from consolidation entries. Deferred taxes are netted and either a net deferred tax asset or net deferred tax liability is recorded separately under tax accruals. For purposes of computing deferred taxes, Deutsche Telekom uses the German income tax rate for undistributed earnings for domestic companies and the respective local tax rate for foreign companies.

**Cost accruals** are only made by Deutsche Telekom when there is an obligation to carry such liabilities on the balance sheet pursuant to § 249 paragraph 1 HGB. This refers mainly to accruals for costs of maintenance related to the financial year, but only incurred within the first three months of the following year. As required by German GAAP, these accruals have been accrued at each period end, which is different from U.S. GAAP requirements.

Accruals, with the exception of pensions and similar obligations as well as Civil Service Health Insurance Fund accruals for future shortfalls, are not discounted.

**Liabilities** are recorded at their repayment amount. In instances where the repayment amount of a liability is greater than the principal amount, the difference is recorded as an asset and recognized as an adjustment to interest expense over the term of the liability.

Unrealized losses relating to **derivative financial instruments** which do not qualify for hedge accounting are recognized when incurred whereas unrealized gains are deferred until realized.

The preparation of consolidated financial statements in accordance with German GAAP requires the Company to make estimates and assumptions that affect the reported carrying amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the amounts of revenues and expenses recognized during the reporting period. Actual results could differ from those estimates.

## NOTES TO THE CONSOLIDATED STATEMENT OF INCOME

## (1) Net revenue(1)

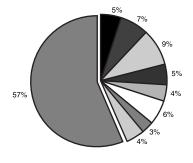
	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Telephone network communications	20,533	21,441	20,430
Licensed service providers/Carriers	1,611	1,229	1,130
Data communications/Systems solutions	2,507	2,326	2,139
Mobile communications	3,061	2,573	2,138
Broadband cable/Broadcasting	1,804	1,597	1,533
Terminal equipment	1,502	1,646	1,737
Special value-added services	2,051	2,001	1,702
Other services	1,254	521	456
International activities	1,396	1,205	985
	35,719	34,539	32,250

(1) Since the beginning of the 1998 financial year, revenues have been reported in line with the new organizational structure of group business areas of the Deutsche Telekom group. The prior year figures have been restated to reflect the new structure.

Revenue by geographic area:

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Domestic	33,333	32,202	30,182
International	2,386	2,337	2,068
	35,719	34,539	32,250
Breakdown of international revenues:			
European Union (excluding Germany)	535	548	555
Rest of Europe	1,537	1,413	1,159
North America	116	126	124
Latin America	27	32	36
Other	171	218	194
	2,386	2,337	2,068

The percentage of the individual revenue segments in relation to net revenue is as follows:



<ul> <li>Telephone network communications</li> <li>Licensed service providers/Carrier</li> </ul>
<ul> <li>Data communications/Systems solutions</li> <li>Mobile communications</li> </ul>
Broadband cable/Broadcasting
Terminal equipment
Special value-added services
Other services
International activities

Other services include revenue from multimedia services and services ancillary to the basic telephone services of Deutsche Telekom, such as rental activities. Other services also include the revenues from taking over and billing services of other carriers in accordance with § 15 of the Telecommunications Customer Protection Ordinance (Telekommunikations- Kundenschutzverordnung— TKV). Special value-added services include public telephone and operator services as well as telephone directory publishing.

International revenue is derived from fixed-network international incoming telephone traffic and internationally generated revenues from other business areas.

The increase in net revenue in 1998, as compared with 1997, of approximately  $\in$ 1.2 billion or 3.4% is a result of the positive development in mobile communications resulting from large growth in the number of customers in the T-D1 network. Despite renewed growth in the number of ISDN access lines, revenue from telephone network communications fell considerably due to intense competition and price reductions in 1998. On the other hand, revenue developments in data communications/systems solutions and licensed service providers/carriers were positive. In 1998, other services included revenues from taking over and billing services of other carriers, amounting to  $\in$ 0.5 billion, which was offset by a corresponding increase in goods and services purchased.

## (2) Changes in inventories and other own capitalized costs

	1998	1997	1996
	millions of Euro		millions of Euro
Increase/(Decrease) in inventories of finished products and work in			
process	41	(313)	26
Own capitalized costs	949	1,827	1,740
	990	1,514	1,766

Own capitalized costs comprise mainly planning and construction costs. They include interest incurred during the construction period of €72 million (1997: €190 million, 1996: €208 million).

#### (3) Other operating income

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Refund of value-added tax (§ 15a UStG)	655	664	775
Other value-added tax refunds			339
Reversal of accruals	408	495	347
Cost reimbursements	284	295	202
Income from the disposition of noncurrent assets (including sale of			
investments)	240	56	20
Ancillary services	127	79	56
Reversal of valuation adjustments of accounts receivable and doubtful			
accounts	80	55	13
Insurance compensation	57	62	78
Other income	218	209	167
	2,069	1,915	1,997

Deutsche Telekom AG received a refund of VAT in accordance with § 15a Umsatzsteuergesetz-UStG (Value-Added Tax Act) of €655 million in 1998. The Company recognized depreciation of €667 million on nondeductible VAT capitalized during tax-free periods prior to 1996.

In 1996 the Company recognized a one-time VAT refund of €339 million, which relates to assets purchased before January 1, 1996 and placed into service during 1996.

Income from the disposition of noncurrent assets mainly includes income from the sale of shares in SES (SES Société européenne des satellites, Betzdorf), amounting to €146 million, which resulted from the restructuring of the share capital and the initial public offering of SES shares.

Of the total amount of other operating income, €826 million (1997: €606 million, 1996: €359 million) relates to other financial years.

## (4) Goods and services purchased

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Goods purchased	1,571	1,508	1,185
Services purchased	5,227	4,697	4,043
of which: domestic network access charges	1,489	801	521
of which: international network access charges	1,409	1,621	1,396
of which: other services	2,329	2,275	2,126
	6,798	6,205	5,228

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Repairs and maintenance expense amounts to €606 million (1997: €523 million, 1996: €590 million) and is included in other services. Other services mainly include costs relating to the maintenance of telecommunications equipment, other equipment and Deutsche Telekom's fleet of vehicles, as well as expenses for software maintenance and utilization of computer capacity from computer companies. Domestic network access charges include network access charges of €522 million from taking over and billing services of other carriers in accordance with § 15 of the Telecommunications Customer Protection Ordinance.

#### (5) Personnel costs/Average number of employees

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	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Wages and salaries:			
Civil servants	2,779	2,959	3,362
Non-civil servants	3,698	3,665	3,392
	6,477	6,624	6,754
Social security contributions and expenses for pension plans and benefits:			
Social security costs	712	707	681
Civil servant pension costs	1,483	1,483	1,483
Non-civil servant pension costs	275	349	354
Pension costs	1,758	1,832	1,837
Active civil servant healthcare costs	204	204	320
Other employee benefits	19	10	9
	2,693	2,753	2,847
	9,170	9,377	9,601

## Number of employees (average for the year)

	1998	1997	1996
	Number	Number	Number
Civil servants	87,573	95,855	110,269
Salaried employees	53,310	51,783	44,884
Wage earners	44,857	49,305	52,616
Deutsche Telekom group(1)	185,740	196,943	207,769
Changes in the composition of the Deutsche Telekom group of			
prior years (in particular MATÁV)	17,634	19,138	20,040
Total Deutsche Telekom group	203,374	216,081	227,809
Trainees/student interns	6,165	6,178	9,003

(1) Before changes in the composition of the Deutsche Telekom group of prior years

Pension cost amounted to €1,758 million (1997: €1,832 million, 1996: €1,837 million). Civil servant pension costs are made in accordance with the provisions of Postreform II. The decrease in personnel costs in 1998 is mainly attributable to the workforce reduction program, which was continued according to plan. This decrease was partly offset by remuneration adjustments as well as by the increase in other employee-related costs, as was also the case in 1997.

### (6) Depreciation and amortization

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Amortization of intangible assets	412	323	264
Depreciation of property, plant and equipment	8,625	9,186	8,762
	9,037	9,509	9,026

The decrease in depreciation and amortization of €472 million, as compared with the same period last year, is mainly attributable to reduced investment activity. Depreciation of property, plant and equipment is mainly attributable to depreciation of telecommunications equipment. The increase in the amortization of intangible assets is primarily attributable to investments made by Deutsche Telekom AG in software products for invoicing and customer administration. Depreciation of €667 million, which is related to nondeductible VAT capitalized prior to 1996, is also included under depreciation and amortization, as was also the case in 1997.

Nonscheduled write-downs of €240 million have been recognized for real estate property which is now used for other purposes and also for radio transmission equipment for the T-C-Tel network.

#### (7) Other operating expenses

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Losses on disposition of noncurrent assets	727	614	545
Marketing expenses	711	694	814
Losses on accounts receivable and provision for doubtful accounts	656	407	363
Rental and leasing expenses	553	536	593
Legal and consulting fees	496	371	411
Postal charges	374	351	335
Other employee-related costs	352	309	250
Advertising gifts and commissions	313	232	225
Provisions	298	531	217
Administrative expenses	186	187	180
Travel and transport expenses	178	197	229
Foreign currency transaction losses	105	114	93
Postal and banking services	36	95	47
Loan employment and temporary employment expenses	32	48	42
Nondeductible value-added taxes paid			18
Other expenses	368	509	472
	5,385	5,195	4,834

The losses on disposition of noncurrent assets are mainly attributable to scrapping of outside plant equipment of  $\in$ 310 million. The increase in marketing expenses is mainly due to the increased level of customer canvassing for the T-D1 network and intensified advertising activities for the introduction of Telly Local. The increase in losses on accounts receivable and provision for doubtful accounts is mainly attributable to the increase in the general rate used for calculating bad debt losses from doubtful accounts receivable and the write-downs of receivables as part of the adjustment of accounts receivable from prior years. Losses on accounts receivable and guarantees related to Southeast Asian companies. Other employee-related costs include approximately €89 million for services provided by the Federal Agency as a result of the business contracts for services or works completed in the 1998 year. They also include additions to the Civil Service Health Insurance Fund accrual in accordance with the new life expectancy tables ("Richttafeln 1998") by Prof. Klaus Heubeck.

Of the total amount of other operating expenses, €805 million relates to other accounting periods.

#### (8) Financial income (expense), net

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Dividend income from investments	105	80	63
(including amortization of goodwill)	(382)	(778)	(284)
Income (loss) related to subsidiaries, associated and related			
companies	(277)	(698)	(221)
Income from debt securities and long-term loan receivables	84	100	62
Interest and similar income	388	351	239
Interest and similar expense	(3,434)	(3,707)	(4,018)
Net interest expense	(2,962)	(3,256)	(3,717)
Write-downs on financial assets and marketable securities	(49)	(49)	(6)
	(3,288)	(4,003)	(3,944)

The decrease of  $\in 0.7$  billion in financial expense results mainly from the decrease of  $\in 0.4$  billion related to losses from companies accounted for under the equity method to  $\in 382$  million (1997:  $\in 778$  million). This decrease in losses is mainly attributable to the significant reduction in the risks related to Southeast Asian investments, as compared with the previous year. More than half of the total 1998 losses shown for companies accounted for under the equity method is from our joint venture "Atlas/Global One".

Income from debt securities and long-term loan receivables consists primarily of interest on receivables from Deutsche Post AG. The write-downs on financial assets, which were nonscheduled, mainly relate to loans and investments in related companies.

## (9) Extraordinary income (losses)

This item represents personnel restructuring measures of  $\in$ 899 million in 1996 as well as share offering costs of  $\in$ 367 million.

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## (10) Taxes

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Income taxes	2,477	1,512	708
Other taxes	177	332	424
	2,654	1,844	1,132
Income taxes			
	1998	1997	1996
	1998 millions of Euro	1997 millions of Euro	1996 millions of Euro
Current income taxes	millions	millions	millions
	millions of Euro	millions of Euro	millions of Euro
Current income taxes	millions of Euro 2,526	millions of Euro 1,586	millions of Euro 1,044

The combined statutory income tax rate, currently about 57%, includes corporate income taxes at a rate of 45% for undistributed earnings, trade taxes at an average German national rate, and the solidarity surcharge of 5.5% on corporate income tax (Solidaritätszuschlag). When earnings are distributed, the corporate income tax imposed on such earnings is reduced to 30%. Taxable income was earned primarily in Germany. Corporate income tax refunds resulting from dividends are reflected in the period for which the dividend is paid.

Differences between actual tax expense of  $\in 2,477$  million and  $\in 1,512$  million for 1998 and 1997, respectively, and the expected corporate income tax expense (computed using 45%, the statutory corporate income tax rate for undistributed earnings) are as follows:

	1998	1997
	millions of Euro	millions of Euro
Expected corporate income tax at the tax rate applicable for retained earnings	2,215	1,506
Increase (decrease) in corporate income tax due to:		
Nondeductible items	(110)	(35)
Trade taxes	567	449
Taxation on foreign operations	(117)	(178)
Utilization of net operating loss carryforwards	(108)	(17)
Tax credit on dividends	(360)	(269)
Tax expenses related to prior years	286	_
Tax effects due to restructuring of companies		206
Temporary differences and loss carryforwards for which deferred taxes are		
not recorded	189	(100)
Other	(85)	(50)
Income taxes	2,477	1,512
Effective income tax rate	50.3%	45.2%

In its tax return Deutsche Telekom AG has recognized a goodwill (residual difference between the market value of the Company and the fair value of the individual assets) that is—based on § 7 paragraph 1 EStG—amortized over a period of 15 years. In line with the principle of prudence, as in 1997, goodwill amortization has not been recognized for accounting purposes in the year under review until this approach has been fully approved.

Deferred tax assets and liabilities result primarily from temporary differences between income determined under German GAAP and under applicable tax law.

At December 31, 1998, Deutsche Telekom had corporate income tax net operating loss carryforwards and similar net operating loss carryforwards amounting to approximately €117 million (1997: €278 million). Deutsche Telekom also had trade tax net operating loss carryforwards amounting to €28 million (1997: €43 million). Substantially all of the net operating loss carryforwards have an unlimited carry forward period under German tax law.

#### (11) (Income) losses applicable to minority shareholders

The income applicable to minority shareholders includes €205 million (1997: €148 million, 1996: €88 million) in gains and €2 million (1997: €2 million, 1996: €5 million) in losses. The gains in 1998 relate, as was also the case in previous years, mainly to MATÁV.

#### (12) Net income

The consolidated net income of €2,243 million was generated primarily by Deutsche Telekom AG.

## NOTES TO THE CONSOLIDATED BALANCE SHEET

## (13) Intangible assets

	Dec. 31, 1998	Dec. 31, 1997
	Net carrying amount	Net carrying amount
	millions of Euro	millions of Euro
Concessions, industrial and similar rights and assets, and licenses in		
such rights and assets	813	629
Goodwill		
From individual company financial statements	1	1
Arising from capital consolidation	148	177
Advance payments	119	50
	1,081	857

The increase in concessions, industrial and similar rights and assets, and licenses in such rights and assets is mainly attributable, as was also the case in 1997, to the capitalization of network control and administration software, as well as customer administration and invoicing software.

The development of intangible assets is shown in the table of consolidated noncurrent assets.

## (14) Property, plant and equipment

	Dec. 31, 1998	Dec. 31, 1997
	Net carrying amount	Net carrying amount
	Millions of Euro	millions of Euro
Land and equivalent rights, and buildings including buildings on land		
owned by third parties	17,657	18,153
Technical equipment and machinery	39,098	43,276
Other equipment, plant and office equipment	1,972	2,394
Advance payments and construction in progress	1,066	1,551
	59,793	65,374

Additions to property, plant and equipment amount to  $\in$ 4,260 million in 1998 and relate mainly to Deutsche Telekom AG. Capital expenditure in 1998 relates primarily to switching and transmission equipment as well as the outside plant network. The decrease in advance payments and construction in progress is mainly attributable to the completion of the digitization of switching equipment in 1997.

Prior to January 1, 1996, Deutsche Telekom's monopoly services were not subject to VAT. Accordingly, the Company was not able to reclaim, in the normal manner, the full amount of VAT paid on goods and services purchased. Instead, the Company was allowed to immediately reclaim 20% of the VAT paid on goods and services purchased. The VAT paid on capitalized items has been capitalized to the extent recoverable under German tax law (§ 15a UStG) beginning January 1, 1996. At the balance sheet date capitalized VAT, after reduction of scheduled depreciation of  $\in$ 0.7 billion, amounted to  $\in$ 0.7 billion. Other operating income includes the  $\in$ 0.7 billion refunds of VAT.

The development of property, plant and equipment is shown in the table of consolidated noncurrent assets.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

#### Leasing

Minimum lease payments under leases expiring subsequent to December 31, 1998 are shown below (millions of Euro):

Year	Capital leases	Operating leases
1999	50	544
2000	47	462
2001	47	413
2002	46	375
2003	48	316
After 2003	806	1,011
Total minimum lease payments	1,044	3,121
Imputed interest	(490)	
Present value of net minimum lease payments	554	

Capital leases are primarily for office buildings and have terms of up to 25 years.

#### (15) Financial assets

	Dec. 31, 1998	Dec. 31, 1997
	Net carrying amount	Net carrying amount
	millions of Euro	millions of Euro
Investments in unconsolidated subsidiaries	16	3
Loans to unconsolidated subsidiaries	4	15
Investments in associated companies	345	593
Other investments in related companies	3,407	1,839
Long-term loans to associated and related companies	253	183
Other investments in noncurrent securities	1,052	619
Other long-term loans	569	572
	5,646	3,824

The decrease of  $\in$ 248 million in the net carrying amount of investments in associated companies resulted from foreign currency effects not affecting net income of  $\in$ 83 million, due largely to the exchange rate fluctuations in Southeast Asia, which in return affected the investments in this region, and amortization of goodwill totaling  $\in$ 171 million, as well as the net losses related to associated companies. This decrease was offset by additions of  $\in$ 272 million, of which  $\in$ 240 million is mainly attributable to capital contributions as a result of the realignment of loans and cash capital increases at Atlas Telecommunications S.A., Brussels.

The increase in other investments in related companies of  $\in$ 1,568 million relates primarily to the purchase of a 2% share, or  $\in$ 1,218 million, in France Telecom S.A., Paris, which was made as part of the cross shareholding and the further expansion of the partnership between Deutsche Telekom and France Telecom. Under the provisions of the purchase contract of December 1, 1998, the objective of which is to further extend cooperation between the two companies, Deutsche Telekom has agreed not to sell its 2% share in France Telecom before December 31, 2001. Furthermore, additions of  $\in$ 333 million were recorded in respect of investments in Sprint Corporation, Kansas City, SES Société européenne des satellites, Betzdorf, VocalTec Communications Ltd., Herzeliya and Wind Telecommunicazioni S.p.A., Rome.

Significant reductions in other investments in related companies result from the fact that Deutsche Telekom's investments in the capital of the satellite companies INMARSAT, EUTELSAT and INTELSAT are re-valued annually in accordance with utilization

Long-term loans mainly include ten loans to associated and related companies. The loan to Detecon Deutsche Telepost Consulting GmbH, Bonn, was increased by €111 million in 1998. This was the largest increase in 1998.

Other investments in noncurrent securities mainly include specialized security funds; in addition, they include debt securities and bonds. Of the major additions in 1998, €617 million relate to further investments in the specialized security funds of Deutsche Telekom AG and reinvestments in existing specialized security funds, which are intended to optimize income from medium and long-term liquid reserves.

Other long-term loans include a loan to Deutsche Post AG, loans for construction of hostels and other buildings as well as loans to employees.

The development of financial assets is shown in the table of consolidated noncurrent assets.

The full list of investment holdings is filed under HRB 6794 with the Commercial Registry of the Bonn District Court. It is available upon request from Deutsche Telekom AG, Bonn, Investor Relations.

Significant investments in associated companies are shown below:

	Dec. 31, 1998			Dec. 31, 1997		
Name	Deutsche Telekom share	Net carrying amount	of which: Net difference between carrying value and equity in net assets	Deutsche Telekom share	Net carrying amount	of which: Net difference between carrying value and equity in net assets
	(in %)	millions of Euro	millions of Euro	(in %)	millions of Euro	millions of Euro
Satelindo	25.00	-	-	25.00	127	127
TRI	20.99	117	71	20.99	197	146
Atlas S.A	50.00	31	-	50.00	38	-
Asiacom	49.88	23	-	49.88	40	-
Islacom	10.42	3	-	10.42	8	-
Other		171	45		183	63
		345	116		593	336

#### (16) Inventories, materials and supplies

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Raw materials and supplies	181	219
Work in process	88	85
Finished goods and merchandise	316	337
Advance payments	10	14
	595	655

Raw materials and supplies include data communications equipment, spare parts for transmission equipment, telecommunications cable as well as spare parts and components for other telecommunications equipment. The decrease in raw materials and supplies is mainly attributable to the completion of the modernization of the telecommunications network; this has also reduced the requirement of raw materials and supplies.

Work in process is mainly related to customer orders for the installation of private automatic branch exchanges (PABXs).

Inventories of terminal equipment held both for resale and leasing are included under finished goods and merchandise.

Advance payments are comprised mainly of payments which have been made for terminal equipment.

#### (17) Receivables

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Trade accounts receivable	3,953	3,989
Receivables from unconsolidated subsidiaries	14	5
Receivables from associated and related companies	151	215
	4,118	4,209

Trade accounts receivable relate primarily to the billing of telecommunications services.

All receivables, with the exception of  $\in$ 3 million, are due within one year.

The allowance for doubtful accounts and changes therein are in millions of Euro as follows:

	January 1,	Charged to costs and expenses	Amounts written off/released	December 31,
1996	506	163	(36)	633
1997	633	182	(486)	329
1998	329	132	(90)	371

The Company directly wrote off accounts receivable balances of €524 million in 1998 (Dec. 31, 1997: €224 million).

#### (18) Other assets

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Tax receivables	237	204
Accrued interest	198	197
Receivables from employees	65	61
Receivables from reimbursements and loans receivable	30	49
Miscellaneous	195	254
	725	765

Other assets amounting to €716 million are due within one year. Of the balance at December 31, 1998, €232 million became legally due only after the balance sheet date and relate to accrued interest and nonchargeable VAT.

### (19) Marketable securities

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Treasury shares	1	1
Other marketable securities	1,369	1,835
	1,370	1,836

In connection with the Company's global offering in 1996, Deutsche Telekom also introduced an Employee Stock Purchase Plan. In 1997, the Company bought back 252 shares with a nominal value of DM 5 [ $\in$ 2.56] per share and issued 1,120 shares at a corresponding issue price of DM 28 [ $\in$ 14.32] and DM 28.50 [ $\in$ 14.57], respectively; no change occurred in 1998. Additional paid-in capital was adjusted in 1997 for the amount received on the issuance of shares in excess of nominal value, taking the discounts granted into consideration. The 459,900 shares remaining since December 31, 1997 are included in marketable securities and valued at  $\in$ 1.2 million. These shares represent 0.02% of capital stock. Any balance remaining thereafter is to be used for a new employee stock purchase plan.

Other marketable securities relate to own bonds held ( $\in$ 943 million) to maintain favorable trading conditions, bearer bonds ( $\in$ 307 million), and Portuguese government bonds ( $\in$ 101 million). With effect from August 1, 1997, Deutsche Telekom AG took over the price maintenance activities for bonds and treasury notes of the former Deutsche Bundespost. For this purpose, a separate intervention securities account was set up for price maintenance of Telekom bonds at the Deutsche Bundesbank.

#### (20) Liquid assets

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Checks	3	1
Petty cash and deposits at the Bundesbank	8	9
Cash in banks (including deposits at Deutsche Postbank AG)	5,075	4,723
	5,086	4,733
	Dec. 31, 1998	Dec. 31, 1997
	millions	millions
	of Euro	of Euro
Cash and cash equivalents (original maturity less than 3 months)		
Cash and cash equivalents (original maturity less than 3 months) Temporary cash investments (original maturity longer than 3 months)	of Euro	of Euro
	of Euro 2,064	of Euro 2,875

Cash and cash equivalents with original maturity of less than 3 months consist primarily of fixed-term bank deposits, checking account balances, deposits at the Bundesbank and Deutsche Postbank AG and petty cash. Temporary cash investments consist of fixed-term bank deposits.

## (21) Prepaid expenses, deferred charges and deferred taxation

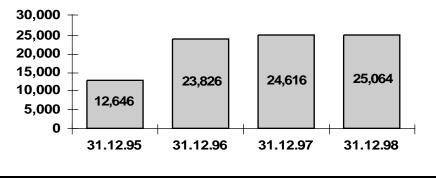
Prepaid expenses and deferred charges of  $\in$ 877 million (Dec. 31, 1997:  $\in$ 994 million) primarily relate to prepaid personnel costs of  $\in$ 347 million (Dec. 31, 1997:  $\in$ 523 million) at Deutsche Telekom AG. Also included are discounts on loans of  $\in$ 82 million (Dec. 31, 1997:  $\in$ 93 million) which are amortized on a straight-line basis over the terms of the related liabilities. In addition, a deferred tax asset of  $\in$ 404 million (Dec. 31, 1997:  $\in$ 354 million) has been included.

## (22) Shareholders' equity

At the shareholders' meeting on June 4, 1998, the decision was taken to convert all shares with a par value of DM 5 [ $\in$ 2.56] into individual no par value shares. This amendment to the Articles of Incorporation was registered with the Commercial Registry in Bonn on July 13, 1998. The stock market listing was amended on August 10, 1998. Under the Articles of Incorporation, the Board of Management is authorized to increase the capital stock of the Company by a further DM 5 billion [ $\in$ 2.6 billion], to a maximum of DM 15 billion [ $\in$ 7.7 billion], by issuing new shares for cash or noncash consideration through the end of 1999.

A detailed account of the development of the consolidated shareholders' equity for the years 1996, 1997 and 1998 is presented in a separate table before the notes to the consolidated financial statements.

The development of the consolidated shareholders' equity from December 31, 1995 to December 31, 1998 is as follows (millions of Euro):



#### (23) Capital stock

The capital stock of the consolidated group represents the capital stock of Deutsche Telekom AG.

In accordance with Article 5 paragraph 1 of the Articles of Incorporation, Deutsche Telekom AG's capital stock was unchanged and totaled DM 13,719 million [ $\in$ 7,014 million] at December 31, 1998, representing 2,743.7 million individual no par value bearer shares. Each share entitles the bearer to one vote and to receive payment for a full dividend for the 1998 financial year. After deducting treasury shares held by the Company, capital stock with a dividend entitlement amounted to DM 13,716 million [ $\in$ 7,013 million].

Deutsche Telekom AG is authorized by its Articles of Incorporation to increase the capital stock by up to DM 5,000 million [€2,556 million]. Following its initial public offering, the Company can increase its capital stock by a further DM 1,431.5 million [€732 million] representing 286.3 million individual no par value shares through the end of 1999.

On July 1, 1996, a capital increase was approved by the shareholders' meeting. This involved the issue of 30 million shares to the Federal Republic as the sole shareholder. Through the initial public offering of Deutsche Telekom AG shares, an additional 713.7 million new shares were issued. The Federal Republic forewent its pre-emptive rights and did not participate in this capital increase. In the course of the 1998 financial year, the Federal Republic issued 24.6% to the federal corporation Kreditanstalt für Wiederaufbau (KfW), thus reducing the Federal Republic's direct holding to approximately 49.4% as at December 31, 1998. At December 31, 1998, the Federal Republic held a total of approximately 1,354 million individual no par value shares in Deutsche Telekom AG (€3,462 million) and the Kreditanstalt für Wiederaufbau sold 2%, or approximately 55 million, of Deutsche Telekom AG's individual no par value shares to France Telecom S.A., Paris (approximately  $\in$ 140 million). The remaining shares are widely held.

#### (24) Additional paid-in capital

The additional paid-in capital of the consolidated group represents the additional paid-in capital of Deutsche Telekom AG.

Changes in the number of treasury shares held led to a slight increase in additional paid-in capital of DM 20,546.40 [€10,505.21] in 1997.

In accordance with § 272 paragraph 2 No. 1 HGB, the proceeds from the share issue in excess of capital stock totaling DM 16,577 million [€8,476 million] was recorded in 1996 as additional paid-in capital.

### (25) Retained earnings (deficit)

In addition to the transfers made from Deutsche Telekom AG's net income in previous years, retained earnings (deficit) include the consolidated group's share of the consolidated subsidiaries' net income or losses, provided they were generated by such subsidiaries since being included in the consolidated group, as well as a reserve for treasury shares held by the Company in accordance with § 272 paragraph 4 HGB. This item also includes the cumulative effects of consolidation entries, while translation adjustments are recorded in a separate component of retained earnings.

In 1996, retained earnings (deficit) were reduced by DM 150 million [€77 million] as a result of the shares issued from Company reserves.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

#### (26) Minority interest

Minority interest represents the minority shareholders' proportionate share of the equity of the consolidated subsidiaries and relates primarily to MATÁV.

#### (27) Pensions and similar obligations

#### Non-civil servant pension plans

The pension obligations of Deutsche Telekom for non-civil servants are provided for by a range of defined benefit plans. These pensions include direct obligations of Deutsche Telekom and indirect pension commitments made to employees through the VAP (Versorgungsanstalt der Deutschen Bundespost) and the DTBS (Deutsche Telekom Betriebsrenten-Service) as well as obligations under Article 131 of the Basic Law (Grundgesetz—GG) as shown in the following table:

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Pension obligations:		
—Direct	214	165
—Indirect	2,901	2,912
Obligations under Article 131 GG	15	18
	3,130	3,095

These pension obligations are fully accrued net of the plan assets at fair value.

The amount of the accrual was determined using actuarial principles that are consistent with U.S. GAAP (SFAS No. 87 and No. 88) and using the assumptions shown in the following table:

	1998	1997	1996
Discount rate	6.0%		
Projected salary increase	2.5%	3.0%	3.0%
Expected return on assets	5.5%	6.4%	6.4%
Projected pension increase	1.5%	2.0%	2.0%

The corresponding pension accruals measured in accordance with § 6a of the Income Tax Act (Einkommensteuergesetz—EStG) are €2,947 million (Dec. 31, 1997: €2,679 million).

In 1997, Deutsche Telekom fundamentally changed the structure of the company pension plans. Previously, the pension benefits were mainly provided by the VAP, which was jointly financed by the successor companies of Deutsche Bundespost and other related entities. In a segmentation agreement concluded on December 19, 1997, the current and future benefit recipients as well as the assets of the VAP were individually allocated to the companies. A minor amount of the obligations remained with the VAP. To enable the VAP to meet these obligations, it was funded with the premium reserve required in accordance with its business plan. The result of this reorganization was that the actuarial losses reported in previous years were largely eliminated.

The VAP benefits, which supplement national social security retirement benefits up to the level specified in the pension benefits formula, are generally calculated on the basis of the level of employee compensation during specific periods of employment. Within the scope of the negotiations on the realignment of the company pension plan, the employer and the trade unions have agreed on arrangements for the protection of vested VAP benefits. Pursuant to this agreement, the benefit obligations due to retirees and employees approaching retirement will remain unchanged. In the case of younger employees with vested benefits, the obligations were converted into an initial amount

reflecting the number of years covered. This amount will be credited to a capital account held by the employer (cash balance plan). Deutsche Telekom credits further amounts to this account; when the insured event occurs, the account balance will be paid out in full, in installments or converted into a pension. If the relevant employees had not reached the age of 35 and had been insured for less than ten years, their benefit obligations are due directly from Deutsche Telekom. In 1997, the DTBS was founded for processing the remaining obligations.

Benefits relating to other direct pension plans are generally determined on the basis of salary levels and years of service; the benefit obligations are usually determined by the amounts credited by Deutsche Telekom to its capital accounts.

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Actuarial present value of benefits:		
Vested	2,839	2,731
Nonvested	447	372
Accumulated benefit obligation	3,286	3,103
Effect of projected future salary increases	85	136
Projected benefit obligation	3,371	3,239
Plan assets at fair value	(214)	(136)
Projected benefit obligation in excess of plan assets	3,157	3,103
Unrecognized net gains (losses)	(27)	(8)
Accrual for pensions	3,130	3,095

Development of the projected benefit obligation:

	1998 millions of Euro	1997 millions of Euro
Projected benefit obligation, beginning of year	3,239	3,818
Service cost	82	88
Interest cost	202	240
Actuarial (gains)/losses	39	9
Total benefits actually paid	(191)	(206)
Reduction due to VAP rearrangement		(710)
Projected benefit obligation, end of year	3,371	3,239

Development of plan assets at fair value:

	1998 millions of Euro	1997 millions of Euro
Plan assets at fair value, beginning of year	136	342
Actual return on plan assets	31	(15)
Contributions by employer	232	248
Benefits actually paid through pension funds	(185)	(205)
Settlement due to new VAP arrangement		(234)
Plan assets at fair value, end of year	214	136

Net periodic pension cost is summarized as follows:

	1998	1997	1997
	millions of Euro	millions of Euro	millions of Euro
Service cost	82	88	109
Interest cost	202	240	237
Expected return on plan assets	(9)	21	8
Periodic pension cost	275	349	354
Effect of VAP rearrangement (pursuant to SFAS No. 88)	_	(218)	
Net periodic pension cost	275	131	354

#### Civil servant retirement arrangements

Deutsche Telekom AG maintains a special pension fund (Unterstützungskasse) for its civil servants. Deutsche Telekom AG is required to assist in funding the German Government's pension and healthcare obligations to Deutsche Telekom AG's current and former civil servant staff and their surviving dependents. Deutsche Telekom AG is legally obligated to make annual contributions to a special pension fund of €1.5 billion for the years 1995 through 1999, and in subsequent years, annual contributions equal to 33% of the gross salaries of active civil servants (including civil servants on unpaid leave). Under Postreform II, the Federal Republic compensates the special pension fund for differences between the ongoing payment obligations of the special pension fund, amounts received from Deutsche Telekom AG and returns on assets, and guarantees that the special pension fund is always in a position to fulfill the obligations it has assumed. The Federal Republic cannot require reimbursement from Deutsche Telekom AG for amounts paid by it to the special fund.

### (28) Other accruals

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Taxes	994	325
Accruals other than taxes		
Civil Service Health Insurance Fund	882	761
Personnel restructuring	449	742
Other obligations	459	412
	1,790	1,915
Outstanding invoices	590	451
Litigation risks	268	367
Risks related to real estate	204	204
Investment risks	204	122
Environmental remediation	193	210
Restoration commitments	106	83
Deferred maintenance	37	30
Unused telephone units on phone cards sold	17	124
Other	821	740
	4,230	4,246
	5,224	4,571

The increase in provisions for taxes is primarily due to corporate income tax and trade tax expenses related to prior years, as well as provisions for value-added tax risks, also related to prior years. The income tax effect of the proposed dividend of Deutsche Telekom AG of  $\in$ 1,683 million has been provided for in the calculation of corporate income tax.

When Postreform II came into effect, the Civil Service Health Insurance Fund was closed to new members. Due to the ageing of the group of people insured, there is an expected shortfall between the fund's sources of regular income and benefits paid. Deutsche Telekom AG has accrued the actuarially determined present value of this future deficit, taking the new 1998 life expectancy tables by Prof. Klaus Heubeck ("Richttafeln 1998") into account, which primarily reflect the increase in average life expectancy.

Deutsche Telekom has, in response to competition, announced its intention to reduce its workforce by approximately 60,000 to 170,000 full-time equivalent employees by the end of the year 2000 (excluding employees of subsidiaries first consolidated after January 1, 1995) through natural attrition, early retirement and other programs. The planned reductions include an estimated 38,300 non-civil servants expected to leave under voluntary separation agreements. In 1998, approximately 1,300 (1997: 2,100) civil servants and 3,200 (1997: 2,600) non-civil servants accepted the Company's offer for early retirement and severance. The early retirement program for civil servants and natural attrition do not result in incremental costs for Deutsche Telekom AG. In 1998, unpaid restructuring costs amounting to €449 million are included in accruals and €21 million are included in other accounts payable.

The table below sets forth the payments made and the related accruals/payables for future payments in respect of these staff reduction measures for the years 1998 and 1997:

	1998 millions of Euro	1997 millions of Euro
Accruals/payables, beginning of year	774	1,069
Payments made(1)	(304)	(295)
Accruals/payables, end of year,	470	774

(1) This includes payments against accruals/payables in 1998: €304 million, 1997: €295 million

Accruals for environmental remediation of €193 million (Dec. 31, 1997: €210 million) were established for site clean-up costs and asbestos removal costs. There are no further foreseeable material contingencies. Deutsche Telekom expects to incur these costs over the next 1 to 3 years.

The difference of  $\in$  3.5 million arising from the capital consolidation and included under other accruals in the 1997 financial year was recognized as income in the 1998 financial year.

# (29) Liabilities

(29) Liabilities			of which due				of which due	
	Total	within one year	in one to five years	after five years	Total	within one year	in one to five years	after five years
				million	s of Euro			
Debt								
Bonds and debentures	36,101	5,372	19,779	10,950	39,686	3,681	23,549	12,456
Liabilities to banks	3,832	315	1,936	1,581	5,252	1,304	1,622	2,326
	39,933	5,687	21,715	12,531	44,938	4,985	25,171	14,782
Other								
Advances received	56	41	15		63	57	6	
Trade accounts payable	2,054	2,044	10		1,825	1,807	18	
Liabilities on bills accepted and drawn					1	1		
Payables to unconsolidated	10	10			0	0		
subsidiaries	10	10			2	2		
companies in which an								
equity interest is held	55	55			62	62		
Other liabilities	3,372	2,257	80	1,035	3,538	2,450	21	1,067
of which: from taxes	(215)	(215)			(376)	(376)		
of which: from social								
security	(60)	(60)			(63)	(63)		
	5,547	4,407	105	1,035	5,491	4,379	45	1,067
Total liabilities	45,480	10,094	21,820	13,566	50,429	9,364	25,216	15,849

Bonds and debentures consist primarily of bonds issued by Deutsche Bundespost.

			Effective in	terest rate		
Due in	up to 6%	up to 7%	up to 8%	up to 9%	over 9%	Total
1999	77	1,789	3,478	_	28	5,372
2000	51	_	326	326	3,282	3,985
2001	1,048	_	_	3,707	571	5,326
2002	_	_	2,759	5,113	_	7,872
2003	_	2,557		_	39	2,596
after 2003	1,036	3,272	6,642			10,950
	2,212	7,618	13,205	9,146	3,920	36,101

Liabilities to banks due in the next 5 years and thereafter are as follows (in millions of Euro):

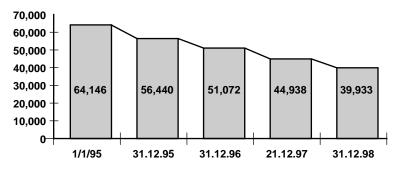
Due in	Amounts
1999	315
2000	240
2001	403
2002	538
2003	
after 2003	1,581
	3,832

The average effective interest rate of total debt is for:	
Bonds and debentures	7.64% p.a. (1997: 7.57% p.a.)
Liabilities to banks	7.52% p.a. (1997: 7.53% p.a.)

,

Deutsche Telekom has agreements with a number of banks pursuant to which it can draw on short-term revolving credit facilities up to €5 billion at interest rates ranging from 5.5% to 6.0% or at the daily interbank rate plus 0.25%. At December 31, 1998, these credit lines had been drawn upon to only a limited extent.

The decrease in debt from January 1, 1995 to December 31, 1998 is as follows (in millions of Euro):



The Company's debt was raised principally to finance the development of the communications networks in eastern Germany.

## Other liabilities

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Interest	1,407	1,388
Rental and leasing obligations	563	583
Loan notes	556	608
Liabilities to employees	120	152
Other	726	807
	3,372	3,538

Other liabilities include taxes of €215 million (Dec. 31, 1997: €376 million) and social security liabilities of €60 million (Dec. 31, 1997: €63 million).

Liabilities include borrowings of €421 million in foreign currencies.

Liabilities in the amount of €70 million (Dec. 31, 1997: €112 million) payable by subsidiary companies to banks and third parties are collateralized. Deutsche Telekom AG has provided no collateral against its liabilities. In accordance with Postreform II (§ 2 paragraph 4 of the Stock Corporation Transformation Act—Postumwandlungsgesetz), the Federal Republic is guarantor of all Deutsche Telekom AG's liabilities which were outstanding at January 1, 1995.

#### Notes to the consolidated statement of cash flows

The consolidated statement of cash flows has been prepared in conformity with International Accounting Standard No. 7, Cash Flow Statements. Liquid assets and short-term investments with original maturities of less than 3 months at the date of purchase are considered cash equivalents for cash flow reporting purposes. These cash and cash equivalents decreased by  $\in$ 811 million in 1998 to  $\in$ 2,064 million at December 31, 1998.

This is a result of the following developments:

## (30) Net cash provided by operating activities

Net cash provided by operating activities increased in 1998 to €13,491 million. The increase of approximately €1.9 billion is mainly attributable to an increase in net income, in the level of income taxes not affecting liquidity and in trade accounts payable. This is offset in particular by a decrease in depreciation of property, plant and equipment and a minor loss related to associated companies.

## (31) Net cash used for investing activities

Net cash used for investing activities increased to  $\in$ 7,511 million in 1998. This is a result of the outflow of short-term investments and of the considerable increase in investments in financial assets (attributable, in particular, to the acquisition of shares in France Telecom). This is offset by a reduction, compared with the previous year, in investments in property, plant and equipment to  $\in$ 4.8 billion. As in previous years, it was possible to finance such investments, totaling approximately  $\in$ 7.5 billion, from cash provided by operating activities.

## (32) Net cash (used for) provided by financing activities

The decrease in cash (used for) provided by financing activities in 1998 to  $\in$ (6,797) million is attributable to an offsetting effect. Cash decreases due to higher dividend payments and the continued repayment of debts according to plan are offset by cash increases resulting from the issuance of new debts, in particular from the issue of a debut benchmark bond with a volume of  $\in$ 1 billion in May 1998.

#### Other information

## (33) Guarantees and commitments, and other financial obligations

## **Guarantees and commitments**

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Guarantees	180	228
Collateral granted against third party liabilities	98	45
Liabilities arising from warranty agreements	29	33
	307	306

## Other financial obligations

	Dec. 31, 1998	Dec. 31,1997
	millions of Euro	millions of Euro
Present value of payments to special pension fund	11,453	12,066
Obligations under rental and lease agreements	3,121	3,348
Purchase commitments for interests in other companies	1,651	1,561
Purchase commitments for capital projects in progress including		
obligations arising from future expenditures	1,421	1,750
Commitments arising from transactions not yet settled	41	104
Contingent obligations arising from Public Law		1
	17,687	18,830

Guarantees and commitments of Deutsche Telekom mainly serve day-to-day business activities and securement of loans.

The present value of payments required to be made by Deutsche Telekom AG, in accordance with Postreform II, to the special pension fund for civil servants amounted to  $\in$ 11.5 billion at December 31, 1998. Upon the withdrawal of the last civil servant from active service, the requirement for Deutsche Telekom to contribute to the civil servant pension fund will expire. The reduction in the present value of  $\in$ 0.6 billion resulted from the payment of  $\in$ 1.5 billion in 1998 to the special pension fund and from the increasing effect of compounding future contributions.

As part of the MagyarCom joint venture agreement, Ameritech, U.S.A. has the option during the term of the agreement to sell certain or all of its shares in the joint venture to Deutsche Telekom. 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, the maximum required at the balance sheet date would have been €1,627 million plus interest.

Deutsche Telekom is a party to a number of lawsuits and other proceedings arising out of the general conduct of its business, including proceedings under laws and regulations related to environmental and other matters. Litigation accruals include the costs of litigation and any probable losses. The Company does not believe that any additional costs will have a material adverse effect on the net worth, financial position and results of the Deutsche Telekom group.

## (34) Financial instruments

### Fair value

The fair value of a financial instrument is the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following is a summary of the estimated fair value of Deutsche Telekom's financial instruments:

	Dec. 31, 1998		Dec. 31, 1997	
	Fair value	Net carrying amount	Fair value	Net carrying amount
		(millions	of Euro)	
Assets Other investments in related companies	4,099	3,407	1,839	1,839
Other long-term loans	569	569	572	572
Other investments in noncurrent securities	1,147	1,052	690	619
Receivables	4,118	4,118	4,209	4,209
Liquid assets	5,086	5,086	4,733	4,733
Other investments in marketable securities	1,383	1,370	1,854	1,836
Liabilities				
Bonds and debentures	40,340	36,101	43,354	39,686
Liabilities to banks	3,832	3,832	5,252	5,252
Other	5,547	5,547	5,491	5,491
Derivative financial instruments(1)				
Interest rate swaps	(62)	(71)	39	32
Interest rate caps purchased	<b>`</b> 2	<b>`</b> 2	8	9
Futures contracts	0	0	0	1
Forward rate agreements	3	0	_	_
Swaptions written	0	(1)	(1)	(1)
Cross currency interest rate swaps sold	9	4	—	
Foreign currency forward exchange contracts	1	0	29	

(1) Non-bracketed amounts represent assets, bracketed amounts represent liabilities.

Fair values were determined as follows:

The fair value of other investments in noncurrent securities is based on quoted market prices for those instruments or similar instruments. The net carrying amounts of trade accounts receivable approximate their fair values, due to the short period to maturity. The net carrying amounts of liquid assets also reflect reasonable estimates of fair value due to the relatively short period to maturity of the instruments. The fair value of other investments in marketable securities is based on quoted market prices for those instruments or similar instruments. The net carrying amount is adjusted to market value where market value is less than the original investment.

The fair value of debt which is 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 fair value of off-balance sheet financial instruments generally reflects the estimated amount the Company 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 the Company'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 the Company's exposure to adverse fluctuations in interest and foreign exchange rates.

The fair values of investments in associated and related companies, which have carrying values of  $\in$ 3,664 million and  $\in$ 2,037 million at December 31, 1998 and 1997, respectively, were not practicably determinable, except for the investments in SES and VocalTec, because they are not publicly traded or cannot be sold due to contractual restrictions at this point in time. SES and VocalTec are valued at their market values based on share prices. Due to the unique nature of the individual other financial guarantees, estimation of their fair values is not practicable. It is not practicable to estimate a fair value for the put option held by Ameritech, U.S.A., because the option provides for the purchase of the shares by Deutsche Telekom at market value plus a US\$ 60 million control premium.

#### **Derivative financial instruments**

The Company uses derivative financial instruments for the purpose of hedging interest rate and currency exposures which arise from its ongoing business operations. In general the Company's policy is to hold or issue financial instruments for other than trading purposes. Derivative financial instruments are subject to internal controls. Derivatives classified as other than trading are those entered into for the purpose of matching or eliminating risk from potential movements in interest rates and foreign exchange rates inherent in the Company's assets, liabilities and positions. A derivative is designated as a hedge where there is an offset between the effects of potential movements in the derivative and designated underlying asset, liability or position being hedged. Such derivatives are reviewed regularly for their effectiveness as hedges. Derivative instruments designated as hedges are accounted for on the same basis as the underlying position.

The Company uses interest rate swaps, forward rate agreements, purchased swaptions and exchange traded futures to reduce its exposure to interest rate and market value volatility on certain debt issues and deposit instruments and manage its interest expense by setting an optimal mix of floating and fixed rate debt and deposit instruments. Interest rate swaps are designated as micro hedges (coupled with individual financial instruments) and macro hedges (coupled with a portfolio of financial instruments).

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

Gains or losses related to changes in the value of interest rate swaps are generally not recognized. Macro interest rate swaps related to deposit instruments are marked to market and resultant negative values are accrued and included as a component of net interest expense; gains are recognized upon realization. Interest rate swaps which are not designated as either micro or macro hedges (which are mainly hedges of planned future transactions) are assigned to the interest instrument valuation portfolio. Unrealized gains and losses from changes in market value are netted and resultant net losses are recognized as a component of net interest expense.

The interest differential to be paid or received on interest rate swaps is recognized in the statement of earnings, as incurred, as a component of net interest expense. Gains or losses on interest rate swaps terminated prior to their maturity are recognized currently as a decrease or increase in net interest expense.

The Company enters into Forward Rate Agreements (FRAs) to manage the interest performance of its deposit portfolios. Deposit portfolio FRAs are marked to market and resultant negative values are accrued, unrealized gains are not recorded. The interest differential paid or received is recognized in the statement of earnings, as incurred, as a component of net interest expense.

Written swaptions are assigned to the interest instrument valuation portfolio. Unrealized gains or losses from changes in market value are netted and resultant net losses are recognized as a component of net interest expense.

The Company uses futures contracts associated with fixed interest investments. Unrealized losses on futures contracts are recognized currently.

The Company uses foreign currency forward contracts to reduce fluctuations in foreign currency cash flows related to revenue and capital expenditure and payments to international third party telecommunications carriers. Foreign currency forward contracts hedging firm commitments to invest in a foreign entity are not valued at the balance sheet date. The investment in the purchased entity is booked using the foreign exchange rate fixed by the foreign currency forward contract. Foreign currency forward exchange contracts hedging other payments and receipts are assigned to foreign currency portfolios categorized by foreign currency type with the related financial instruments. These portfolios are marked to market at the balance sheet date and resultant negative portfolio values are accrued under other liabilities.

The Company purchases options to hedge investments in foreign entities. An option purchased to hedge a firm commitment to invest in a foreign entity is included in other assets and valued at purchase cost. Upon exercise of the option the premium is included in the purchase cost of the asset. An option purchased which hedges a planned transaction is included in foreign currency portfolios referred to above. Upon exercise the option premium is included in the underlying transaction. Options expiring unexercised are recognized currently and assigned to other operating costs or revenues.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of  $\leq 1 = DM 1.95583$ 

The following is a summary of the contract or notional principal amounts outstanding at December 31, 1998 and 1997:

	Dec. 31, 1998		Dec. 31,	1997
	Maturity	Notional amount	Maturity	Notional amount
		millions of Euro		millions of Euro
Interest rate swaps (DM)				
Pay variable / receive fixed (receiver)	1999-2008	3,745	1998-2002	2,940
Pay fixed / receive variable (payer)	2002-2007	1,892	2002-2007	1,125
Forward interest rate swaps (payer)	—	—	2008	256
Interest rate swaps (US\$)				
Variable to fixed (receiver)	2002-2008	365		
Fixed to variable (payer)	2002-2008	365	2002-2007	229
Interest rate cap purchased	2002	153	2002	153
Future contracts	1999	38	1998	169
Forward rate agreements	1999	971		
Swaptions sold	1999	205	1998	153
Cross currency interest rate swaps	2001-2003	77	_	
Foreign currency forward exchange contracts				
Forward purchases	1999	225	1998	228
Forward sales	1999	236	_	—

The terms of the receiver interest rate swaps provide for Deutsche Telekom to receive interest at fixed rates (weighted average 4.6% at December 31, 1998 and 1997, respectively) and pay interest at variable rates (generally based on the six-month LIBOR rate). The terms of the payer interest rate swaps outstanding at December 31, 1998 provide for Deutsche Telekom to pay interest at fixed rates (weighted average of 5.5%) and receive interest at variable rates (generally based on the six-month LIBOR rate). Amounts received and paid under interest rate swaps, which are dependent on the notional amounts and the contractual interest rates, are settled either annually or semi-annually.

The interest rate caps purchased have five-year terms and provide for Deutsche Telekom to receive excesses over a specified reference interest rate.

The terms of the futures contracts require Deutsche Telekom to pay to or receive from the counterparty losses or gains arising on movements in the quoted contract prices at specified intervals.

The forward rate agreements with a term of six to eighteen months, which are mainly sold, provide an average interest rate of 3.8% based on an interest term of three to six months.

The swaptions sold all have six-month terms. The underlying interest rate swaps with a nominal value of  $\in$ 102 million have a three-year term and interest rate swaps with a nominal value of  $\in$ 102 million have a five-year term.

The forward foreign exchange contracts fix amounts the Company is required to pay in the future in DM for a contractually fixed amount of foreign currencies, generally US dollars.

The notional amounts of the derivative financial instruments do not necessarily represent amounts exchanged by the parties and, therefore, are not a direct measure of the exposure of the Company through its use of derivatives. The amounts exchanged are calculated by reference to the notional amounts and by the other terms of the derivatives, such as interest rates, exchange rates or other indices.

## (35) Information on the Board of Management and the Supervisory Board of Deutsche Telekom AG

No remuneration was paid to members of the Supervisory Board of Deutsche Telekom AG in 1998. The Supervisory Board only received meeting attendance fees amounting to  $\in$ 18,406.51. Subject to the approval of the shareholders' meeting, Supervisory Board remuneration for the 1998 financial year is to amount to  $\in$ 251,555.60.

Provided that the 1998 financial statements of Deutsche Telekom AG are approved in their current form, the remuneration of the Board of Management of Deutsche Telekom AG will amount to  $\in$ 4,690,994.34. The remuneration to be paid to former members of the Board of Management of Deutsche Telekom AG and their surviving dependents amounts to  $\in$ 3,904,265.69.

Pension accruals totaling  $\leq$ 4,045,526.96 have been established for this group of persons at December 31, 1998. Pension obligations to such persons for which no reserve had to be established amounted to  $\leq$ 2,661,207.77 at that date.

The members of the Board of Management and former members of the Board of Management, respectively, have not received any loans from the Company.

#### (36) Proposal for appropriation of net income of Deutsche Telekom AG

The income statement of Deutsche Telekom AG reflects net income of DM 3,305,825,731.33 [€1,690,241,857.08]. Following inclusion of the unappropriated net income of DM 12,428,796.85 [€6,354,742.92] carried forward from 1997, this gives rise to total unappropriated net income of DM 3,318,254,528.18 [€1,696,596,600].

The Supervisory Board and the Board of Management propose, subject to the approval of the shareholders' meeting, the payment of a dividend of DM 3,291,888,120.00 [ $\in$ 1,683,115,669.56]. This represents a dividend of DM 1.20 [ $\in$ 0.61] per individual no par value share on the capital stock of DM 13,716,200,500.00 [ $\in$ 7,012,981,956.51]. The remaining balance of DM 26,366,408.18 [ $\in$ 13,480,930.44] will be carried forward as part of unappropriated net income.

## Reconciliation to U.S. GAAP

Due to its listing on the New York Stock Exchange, Deutsche Telekom AG is required to submit, in addition to its local financial statements, annual financial statements in the format of Form 20-F to the SEC. This procedure is in accordance with the foreign integrated disclosure system for foreign companies listed on the stock exchange. In addition to the adjustments which have already been made in the consolidated balance sheet and statement of income in order to comply with U.S. GAAP, further adjustments are required in order to meet the requirements of U.S. GAAP and Form 20-F. These adjustments refer to those cases where application of U.S. GAAP is not permissible under German GAAP. The reconciliation to U.S. GAAP explains how the corresponding values of the German consolidated financial statements after U.S. GAAP adjustments comply with U.S. reporting requirements.

# (37) Significant differences between German and United States generally accepted accounting principles

Certain property, plant and equipment on hand as of December 31, 1992 have been valued at fair values rather than at historical cost less depreciation, which is required by U.S. GAAP. The Company has not been able to quantify the effect of the difference in accounting treatment because, prior to January 1, 1993, the predecessor company did not maintain sufficiently detailed historical cost records. The fair market values recorded in the opening balance sheet of Deutsche Telekom AG at January 1, 1995 have been carried forward as the acquisition or construction costs.

## (a) Personnel restructuring

Under German GAAP, the estimated costs of employee separations have been accrued on the basis of the Company's announced intention to reduce its workforce. Under U.S. GAAP, these costs are accrued in the period that the employee accepts the offer of termination. The Company has agreed pursuant to its collective bargaining agreements with the unions that, prior to January 1, 2001, it will not unilaterally terminate the employment of its non-civil servant employees due to business reasons. Civil servants may not be involuntarily terminated under the terms of their conditions of employment.

## (b) Share offering costs

In 1996, the Company incurred costs in connection with its initial public offering. Such costs are recorded as extraordinary expenses in the income statement in accordance with German GAAP. Under U.S. GAAP, specific incremental costs directly attributable to an offering are charged against the proceeds of the offering.

## (c) Maintenance accruals

As required by German GAAP, the costs of maintenance related to the financial year but only incurred within the first three months of the following year have been accrued at each period end. Under U.S. GAAP, the cost of maintenance is recognized in the periods incurred.

## (d) Value-added tax

As of December 31, 1998 Deutsche Telekom had nondeductible capitalized VAT amounting to €667 million, net of depreciation in 1998 of €667 million, recorded as property, plant and equipment. In addition, in 1998 Deutsche Telekom recovered €655 million of VAT previously paid. German GAAP requires the capitalized VAT to be depreciated and the VAT recoveries to be recorded as other operating income. Under U.S. GAAP, the capitalized VAT is treated as a long-term receivable rather than property, plant and equipment. Therefore, neither depreciation nor other operating income are recognized.

#### (e) Deferred income including interest rate swaps

Under German GAAP, gains and losses resulting out of the termination of interest rate swaps are recognized in the year of termination. Under U.S. GAAP, gains and losses on interest rate swaps accounted for as hedges are amortized over the remaining outstanding period of the interest rate swap or the remaining life of the hedged position, whichever is shorter. During the course of 1996, interest rate swap contracts with a notional amount of  $\in$ 1,253 million and maturities between 1998 and 2000 were terminated resulting in a gain of  $\in$ 64 million.

## (f) Employee share purchase plans

Employees who participated in an employee share purchase plan bought shares at a discount of approximately 40%. Under German GAAP, the proceeds of the offering were recorded net of such discounts. Under U.S. GAAP, the discount is treated as compensation expense.

Employees could also participate in a financed share purchase plan. In connection with this plan, Deutsche Telekom agreed to pay a bank for its services on a monthly basis through December 31, 2001. Under German GAAP, the costs of this plan are recognized as they are paid. Under U.S. GAAP, the costs were fully recognized in 1996.

## (g) Unrealized gains on marketable securities

Under German GAAP, marketable debt and equity securities (including certain securities classified as other investments) are generally carried at historical cost. Under U.S. GAAP, marketable debt and equity securities other than investments accounted for by the equity method, are categorized as either trading, available for sale, or held to maturity. Securities classified as trading or available for sale are reported at fair value at the balance sheet date and held to maturity securities are reported at historical cost. Unrealized gains and losses on trading securities are recorded in net income while unrealized gains and losses on securities categorized as available for sale are recorded, net of income tax, in shareholders' equity.

#### (h) Other differences

Other differences consist primarily of the miscellaneous valuation differences that are not individually significant, including the treatment of other derivative financial instruments and unrealized gains on foreign currency receivables and payables that are not deferred under U.S. GAAP. Other differences related to the 1997 financial year also include the different treatment under German GAAP of foreign currency effects not affecting net income arising from the deconsolidation of subsidiaries.

#### (i) Income taxes

The determination of income tax expense under German GAAP differs from U.S. GAAP as follows:

- —Under U.S. GAAP, in contrast to German GAAP, deferred tax assets are recognized for the estimated future tax effects attributable to tax loss carryforwards.
- —Under German GAAP, deferred taxes are not recorded for temporary differences which arose during tax free periods. Under U.S. GAAP, the estimated future tax effects related to those temporary differences are recognized.
- —Under German GAAP, deferred taxes have not been recognized for those temporary differences which are not expected to reverse in the foreseeable future. Under U.S. GAAP, deferred taxes are generally recognized for all temporary differences.

Deferred taxes are also provided for the income tax effects of valuation differences between U.S. GAAP and German GAAP. Deferred tax assets are measured based on enacted tax law and reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

The following table shows the differences between income tax expense determined in accordance with U.S. GAAP and German GAAP:

	1998	1997	1996
	millions of Euro	millions of Euro	millions of Euro
Current income taxes			(268)
Deferred taxes from the application of U.S. GAAP	73	(353)	297
Deferred taxes on U.S. GAAP/German GAAP differences	130	136	(161)
	203	(217)	(132)

## (j) Minority interest

Under U.S. GAAP, minority interest is not included in shareholders' equity.

## Reconciliation of net income from German GAAP to U.S. GAAP:

	Note	1998 millions of Euro	1997 millions of Euro	1996 millions of Euro
Net income as reported in the consolidated financial				
statements under German GAAP		2,243	1,689	899
Personnel restructuring accrual	(a)	(286)	(252)	491
Share offering costs	(b)	_		288
Maintenance accruals	(C)	7	(21)	(29)
Value-added tax	(d)	13	3	(108)
Deferred income/Interest rate swaps	(e)	20	5	(59)
Employee share purchase plans	(f)	4	3	(37)
Other differences	(h)	21	46	3
Income taxes	(i)	203	(217)	(132)
Net income in accordance with U.S. GAAP		2,225	1,256	1,316

## Reconciliation of shareholders' equity from German GAAP to U.S. GAAP:

	Note	Dec. 31, 1998	Dec. 31, 1997
		millions of Euro	millions of Euro
Shareholders' equity in accordance with German GAAP		25,064	24,616
Personnel restructuring accrual	(a)	234	519
Maintenance accruals	(c)	34	27
Value-added tax	(d)	(92)	(105)
Deferred income/Interest rate swaps	(e)	(35)	(55)
Employee share purchase plans	(f)	(8)	(12)
Unrealized gains on marketable securities	(g)	800	71
Other differences	(h)	44	23
Income taxes	(i)	1,581	1,794
Minority interest	(j)	(765)	(741)
Shareholders' equity in accordance with U.S. GAAP		26,857	26,137

## Changes in shareholders' equity in accordance with U.S. GAAP:

	1998	1997
	millions of Euro	millions of Euro
Shareholders' equity, beginning of year	26,137	25,923
Net income in accordance with U.S. GAAP	2,225	1,256
Other comprehensive income		
Net change in unrealized gains on marketable securities, net of deferred		
taxes	314	26
Currency translation	(135)	(227)
	179	(201)
Dividends for 1997 and 1996, respectively	(1,684)	(841)
Shareholders' equity, end of year	26,857	26,137

## (38) Deferred taxes in accordance with U.S. GAAP:

Deferred tax assets and liabilities arising from temporary differences and net operating losses are as follows:

	Dec. 31, 1998 millions of Euro	Dec. 31, 1997 millions of Euro
Deferred tax assets in accordance with U.S. GAAP		
Current deferred tax assets		
Net operating loss carryforwards	42	92
	41	20
Noncurrent deferred tax assets		00
Net operating loss carryforwards		33
Personnel restructuring accrual	28	
Pension accruals	1,629	1,631
Civil servant health insurance accrual	440	434
Other accruals	326	427
Other	71	
	2,577	2,637
Deferred tax liabilities in accordance with U.S. GAAP Current deferred tax liabilities		
Accruals	(8)	—
Property, plant and equipment	(8)	(256)
Personnel restructuring accrual		(44)
Unrealized gains on marketable securities	(456)	(40)
Other		(145)
Deferred tax liabilities in accordance with U.S. GAAP	(472)	(485)
Net current deferred tax asset (liability)	76	112
Net noncurrent deferred tax asset	2,030	2,040
Valuation allowance	(121)	(4)
Net deferred tax asset under U.S. GAAP	1,985	2,148

The following table shows the development of deferred taxes from German GAAP to U.S. GAAP:

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Net deferred taxes under German GAAP         U.S. GAAP adjustments:	404	354
Application of U.S. GAAPU.S./German GAAP differences	2,142 (561)	2,069 (275)
Net deferred taxes under U.S. GAAP	1,985	2,148

## (39) Additional information on the financial statements in accordance with U.S. GAAP

## Consolidated statement of income

Certain items in the total cost income statement would be classified differently under U.S. GAAP. These items include, in particular, reversals of accruals and allowances for doubtful accounts that would generally be recorded as reductions to the original expense lines under U.S. GAAP rather than separately as income.

	1998 millions of Euro	1997 millions of Euro	1996 millions of Euro
Results from ordinary business activities/Income before income			
taxes	4,719	3,096	2,264
Income taxes	(2,274)	(1,729)	(851)
minority shareholders	2,445	1,367	1,413
Extraordinary loss (net of income tax of €11 million in 1996)	—	—	(14)
(Income) losses applicable to minority shareholders	(220)	(111)	(83)
Net income in accordance with U.S. GAAP	2,225	1,256	1,316
Earnings per share/ADS in accordance with U.S. GAAP (in DM):			
Before extraordinary losses	0.81	0.46	0.63
Extraordinary losses	—	—	(0.01)
Net income	0,81	0,46	0,62
Weighted average shares outstanding (in millions)	2,743	2,743	2,110

## Consolidated statement of comprehensive income

In addition to the contents of the financial statements which must be disclosed in accordance with German GAAP, comprehensive income must be disclosed under U.S. GAAP beginning in 1998. Comprehensive income covers certain changes to the shareholders' equity not affecting net income and not related to capital payments, dividend payments or similar transactions with the shareholders.

	1998 millions of Euro	1997 millions of Euro	1996 millions of Euro
Net income in accordance with U.S. GAAP	2,225	1,256	1,316
Other comprehensive income			
Currency translation	(135)	(189)	(12)
Reclassification of realized currency translation differences	_	(38)	_
Unrealized gains on marketable securities (net of taxes in 1998: €416			
million and 1997: €35 million)	314	26	4
Other comprehensive income	179	(201)	(8)
Total income/comprehensive income	2,404	1,055	1,308

## Development of other comprehensive income

	Currency translation	Unrealized gains on marketable securities	Other Comprehensive income
	millions of Euro	millions of Euro	millions of Euro
January 1, 1997	(179)	5	(174)
Changes	(227)	26	(201)
December 31, 1997	(406)	31	(375)
Changes	<u>(135</u> )	314	179
December 31, 1998	(541)	345	(196)

## Balance sheet presentation under U.S. GAAP

German GAAP does not require presentation of a classified balance sheet. Under U.S. GAAP, all receivables due after one year and all liabilities payable after one year are classified as noncurrent. Summarized balance sheet information measured and classified in accordance with U.S. GAAP is as follows:

	Dec. 31, 1998	Dec. 31, 1997
	millions of Euro	millions of Euro
Assets:		
Current assets:		
Cash and cash equivalents	2,064	2,878
Other current assets	10,889	9,973
	12,953	12,851
Noncurrent assets	68,564	72,075
	81,517	84,926
Shareholders' equity and liabilities:		
Current liabilities:		
Short-term debt	5,688	4,985
Other liabilities	4,867	5,011
Accruals	3,692	2,791
	14,247	12,787
Long-term liabilities:		
Long-term debt	34,163	39,861
Other noncurrent liabilities	5,502	5,435
	39,665	45,296
Minority interest	748	706
Shareholders' equity		
Capital stock	7,014	7,014
Additional paid-in capital	14,108	14,108
Retained earnings and unappropriated net income	5,932	5,391
Total other comprehensive income	(196)	(375)
Treasury shares	(1)	(1)
	26,857	26,137
	81,517	84,926

#### (40) Segment information by group business area in accordance with SFAS No. 131

In June 1997, the Financial Accounting Standards Board issued SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information. This statement, which Deutsche Telekom is obliged to adopt for the first time for the 1998 financial year, requires that companies disclose information on their operational segments in accordance with their internal reporting structures.

According to the definitions in the previously applicable SFAS No. 14, which required segmentation by sector, Deutsche Telekom operated only in the telecommunications sector.

Having adopted SFAS No. 131, Deutsche Telekom has identified the following operational segments for which reporting is required: telephone network communications, mobile communications, broadband cable/broadcasting, terminal equipment, special value-added services and international activities. The segments for which reporting is required are strategic group business

areas which differ in their products and services, their relevant sub-markets, the profile of their customers and their regulatory environment.

In the 1996 and 1997 financial years, considerable development in internal reporting and major changes in the structure of the group business areas occurred. Generating comparable segment figures in accordance with SFAS No. 131 for the years before 1998 would be impracticable. Deutsche Telekom has therefore opted not to present such figures.

Deutsche Telekom does not assign income tax and taxes chargeable as expenses to individual segments in its group segment reporting. With the exception of depreciation and amortization, no major noncash items are assigned to segments.

The valuation methods used for the group segment reporting correspond mainly to those used in the German consolidated financial statements.

Deutsche Telekom evaluates the segments' performance based on their income before taxes and their extraordinary income. Revenues generated and goods and services exchanged between segments are, as far as possible, calculated on the basis of market prices. Other expense and income items as well as property, plant and equipment and capital expenditure are in principle assigned to the segments by allocation procedure.

		Telephone network communications	Mobile communications	Broadband cable/ Broadcasting	Terminal equipment	Special value-added services	International activities	Other segments	Reconciliation	Group
				(milli	ions in Eu	ro)				
Net revenue	1998	20,533	3,061	1,804	1,502	2,051	1,322	5,372	74	35,719
segments	1998	1,087	934	93	221	235	12	3,414	(5,996)	0
amortization	1998	(5,103)	(580)	(977)	(275)	(222)	(243)	(1,678)	41	(9,037)
Net interest expense Income(loss) related to associated and related	1998	(1,654)	(60)	(355)	(70)	(67)	(67)	(686)	(3)	(2,962)
companies	1998	0	0	0	0	0	0	(323)	(3)	(326)
Income before taxes Property, plant and	1998	4,796	672	(325)	(114)	(181)	267	(40)	25	5,100
equipment Capital expenditure on property, plant and	1998	36,997	1,333	7,052	1,014	1,269	1,785	10,343	0	59,793
equipment	1998	1,907	491	377	124	64	440	857	0	4,260

### Telephone network communications

The group business area telephone network communications provides voice telephony and associated services in the fixed network for a broad range of customers. The services are provided mainly within the domestic market and are, in many areas, subject to regulation by the Regulatory Authority for Telecommunications and Posts.

In this segment, Deutsche Telekom generated revenue with third parties in the year under review amounting to  $\in$ 20,533 million. Domestic call charges account for approximately 60% of this revenue, connection charges, monthly rental charges and other domestic services for approximately 30% and international call charges for approximately 10%. Whereas revenues from call charges fell slightly, those from other services largely remained stable. The decrease in revenues from call charges is attributable to falling prices and the full liberalization of the markets. Revenue from business with other segments, amounting to  $\in$ 1,087 million, relates mainly to services provided for various product packages offered by group business areas other than the group business area telephone network communications, in particular special value-added services.

Depreciation in the telephone network communications segment, which accounts for more than half of Deutsche Telekom's total depreciation and amortization, relates to the allocation of large proportions of property, plant and equipment to this segment.

Balances have been restated from Deutsche Mark into Euro using the official fixed conversion rate of €1 = DM 1.95583

The net interest expense of  $\in$ 1,654 million is attributable to the high capitalization ratio in this group business area.

With income before taxes of  $\in$ 4,796 million, telephone network communications is the decisive segment contributing to the Group's results. In the year under review, this result was influenced in particular by falling call charges and the losses of market share resulting from the end of Deutsche Telekom's monopoly.

As Deutsche Telekom's main business segment, the group business area telephone network communications accounts for  $\in$  36,997 million, approximately 62% of the Group's property, plant and equipment. These include, in particular, significant parts of the network infrastructure and of real estate used for the provision of telephone network communications services.

Capital expenditure relates mainly to technical equipment.

## Mobile communications

The group business area mobile communications provides mobile telephone and paging services for a broad range of customers. The services are provided mainly within the domestic market. In the most important sector of this market, digital mobile telephony, there are currently four mobile communications operators offering their services.

T-D1, Deutsche Telekom's digital mobile telephone service, generated 78% of the segment's net revenue. The analog mobile telephone service, T-C-Tel, accounts for 8% and the other mobile communications services for 14% of total revenue generated with third parties, which amounted to  $\in$ 3,061 million.

Revenue from business with other segments amounting to €934 million relates mainly to network interconnection services provided by the group business area mobile communications.

Depreciation in the mobile communications segment, which accounts for 6% of Deutsche Telekom's total depreciation and amortization, relates to property, plant and equipment used for mobile communications.

The net interest expense of €60 million is mainly related to the financing of property, plant and equipment.

Along with telephone network communications, mobile communications, with income before taxes of €672 million, is a major contributor to the Group's results. Despite the price reductions and the subsidization of mobile terminal equipment in the year under review, the result of the mobile communications segment benefited from the growth of the number of customers in Deutsche Telekom's mobile network.

Property, plant and equipment of this group business area consists mainly of network elements and other mobile network equipment.

Capital expenditure relates mainly to the expansion of the digital mobile network.

#### Broadband cable/broadcasting

The group business area broadband cable/broadcasting provides broadcasting services for analog and digital radio and television channels. The services are provided within the domestic market and are subject to the regulations of the regional media supervisory authorities.

Connection charges and monthly cable charges paid by residential cable users along with the transmission charges paid by local cable companies contribute to 75% of the segment's net

revenue. Revenues from the provision of transmission capacities for radio and television broadcasters account for the remaining 25% of the segment's net revenue.

Revenue from business with other segments is very low.

Depreciation in the broadband cable/broadcasting segment, which accounts for approximately 11% of Deutsche Telekom's total depreciation and amortization, relates mainly to the cable network. The net interest expense of €355 million is mainly related to the financing of the segment's property, plant and equipment.

In the 1998 financial year, this group business area recorded losses before taxes of €325 million. The increase in cable charges at the end of 1997 contributed to the improvement of this result. The result was influenced negatively, however, by restrictions on the marketing of the cable network. Property, plant and equipment of this group business area consists mainly of technical equipment and real estate; broadband cable accounts for two thirds of the property, plant and equipment and broadcasting installations for one third.

Capital expenditure relates mainly to equipment replacements and capital expansion for new connections to the broadband cable network and for the construction of broadcasting installations.

#### Terminal equipment

The group business area terminal equipment sells and rents out terminal equipment and private automatic branch exchanges to various target groups. The services are provided mainly within the domestic market. In the sale of terminal equipment, Deutsche Telekom, which has no production facilities of its own, is in direct competition with its suppliers.

The segment generated net revenues of €1,502 million.

Revenue from business with other segments amounting to €221 million relates mainly to terminal equipment used by Deutsche Telekom and services provided for the group business area telephone network communications.

Depreciation in the terminal equipment segment relates to the depreciation of property, plant and equipment allocated to this group business area.

The net interest expense of  $\in$ 70 million mainly reflects the financing of property, plant and equipment allocated to this group business area.

In the 1998 financial year, this group business area recorded losses before taxes of €114 million. The improvement in the results of the group business area terminal equipment is attributable to the streamlining of the product portfolio in 1998 and the initiation of further measures.

Property, plant and equipment is allocated to this group business area on a proportional basis in line with usage, in particular of real estate and plant and office equipment.

Capital expenditure relates mainly to the increase in property, plant and equipment allocated to this group business area.

## Special value-added services

The group business area special value-added services provides various services based on the telephone network for a broad range of customers. These include directory inquiries, call centers, freecall and shared-cost numbers and public telephones. The services are provided mainly within the domestic market and are subject to competition.

The biggest contribution to the segment's net revenue, 47%, is made by freecall and sharedcost numbers. Public telephones generated 32% of the net revenue and directory inquiries 20%. Revenue from business with other segments amounting to  $\in$ 235 million relates mainly to services provided for the group business areas telephone network communications and systems solutions. Depreciation in the special value-added services segment relates to the property, plant and equipment allocated to the group business area.

The net interest expense of  $\in$  67 million is mainly related to the financing of property, plant and equipment.

In the 1998 financial year, this group business area recorded losses before taxes of  $\in$ 181 million. The improvement in the results of the group business area special value-added services was influenced by the adjustment of charges for individual services and the optimization of the concept for locating public telephones.

Property, plant and equipment is allocated to this group business area on a proportional basis in line with usage.

## International activities

For the purposes of segment reporting, the group business area international activities only relates to Deutsche Telekom's shareholding in MATÁV. MATÁV operates on the Hungarian telecommunications market as a full-service provider of telephone services.

The segment's net revenue is mainly attributable to MATÁV's activities in the fixed network and mobile communications business.

Revenue from business with other segments is minimal.

Depreciation in the international activities segment relates to depreciation of property, plant and equipment at MATÁV.

The net interest item of €67 million reflects the company's interest expense.

In the 1998 financial year, this group business area recorded profit before taxes of €267 million.

Property, plant and equipment of this segment represents that of MATÁV.

Capital expenditure relates mainly to the expansion of the telephone networks in Hungary.

## Other segments

Other segments include those operational segments which, in accordance with the requirements of SFAS No. 131, need not be shown individually, and other activities and property, plant and equipment which are not allocated to a specific operational segment. The recorded loss reflects the losses attributable to associated and related companies, as well as related administration and interest costs. These losses also include write-downs of financial assets and marketable securities. This was offset by income before taxes from the segments data communications/systems solutions and licensed service providers/carriers. Property, plant and equipment includes the property, plant and equipment of the other group business areas and corporate headquarters.

#### Reconciliation

The items to be reconciled relate mainly to consolidation measures and differences in the composition of the Deutsche Telekom group taken as the basis for management reporting and that

used for the consolidated financial statements under German GAAP. The net revenues shown in the reconciliation relate to subsidiaries shown in the consolidated financial statements under international activities.

## (41) Other matters

In June 1997, the Financial Accounting Standards Board issued SFAS No. 130, Reporting Comprehensive Income, which covers certain changes to the shareholders' equity not affecting net income and not related to capital payments, dividend payments or similar transactions with the shareholders. Deutsche Telekom adopted this statement for the year under review.

In June 1997, the Financial Accounting Standards Board issued SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information, which specifies segment reporting on the basis that is used internally for reporting to management. Deutsche Telekom adopted this statement for the year under review.

In February 1998, the Financial Accounting Standards Board issued SFAS No. 132, Employers' Disclosures about Pensions and Other Postretirement Benefits. This standard does not change the measurement or recognition of costs for pensions or other postretirement benefits but rather standardizes disclosures and eliminates those that are no longer useful. Deutsche Telekom adopted this statement for the year under review.

The AICPA issued Statement of Position 98-1 (SOP 98-1) in March 1998, Accounting for the Costs of Computer Software Developed or Obtained for Internal Use, which has to be adopted for the 1999 financial year. In accordance with SOP 98-1, certain expenses incurred during the project development stage of computer software for internal use are to be capitalized and amortized over its expected useful life. Deutsche Telekom adopted this statement in 1999.

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities, which is required to be adopted from the financial year 2000. Under the provisions of SFAS No. 133, derivative instruments are rights and obligations which meet the definition of assets or liabilities and should be reported in financial statements. They should, in principle, be valued at market value (fair value). Alternative treatment is only permissible, if it can be shown that this is attributable to hedging, which satisfies the requirements of the statement with regard to documentation and monitoring of efficiency. Deutsche Telekom is currently evaluating the impact of this statement and will adopt it for the financial year 2000.

## Bonn, March 24, 1999

Deutsche Telekom AG Board of Management

Dr. Ron Sommer	Josef Brauner
Detlev Buchal	Jeffrey A. Hedberg
Dr. Hagen Hultzsch	Dr. Heinz Klinkhammer
Dr. Joachim Kröske	Gerd Tenzer

## FOR USE BY INSTITUTIONAL INVESTORS

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## Deutsche Telekom AG International Offering

## **Designation Form for Institutional Investors**

Institutional investors outside the United States and Canada who wish to do so may split orders among more than one Underwriter or designate selling concessions. Investors may designate selling concessions to an Underwriter / Underwriters other than the Underwriter with whom they have placed an order. Designations are to be made after allocation and must be made by July 5, 1999.

Such designations may be made either verbally to the Underwriter to whom an order is given or via this form. Forms must be sent by fax to the number below by July 5, 1999.

In the event of any dispute as to the validity of any designation, Deutsche Telekom reserves the right to determine the Underwriter or Underwriters to which the selling concession is payable.

<sup>1</sup> The undersigned wish to designate the selling concession on any allocation in the International <sup>1</sup> Offering as follows:

Deutsche Bank Aktiengesellschaft	%	Paribas	%
Dresdner Bank Aktiengesellschaft	%	Société Générale	%
Goldman Sachs International	%	Banque Nationale de Paris	%
ABN AMRO Rothschild	%	Bayerische Landesbank Girozentrale	%
Credit Suisse First Boston (Europe) Limited	%	Bayerische Hypo- und Vereinsbank AG	%
Merrill Lynch International	%	Westdeutsche Landesbank Girozentrae	%
COMMERZBANK Aktiengesellschaft	%	HSBC Investment Bank plc	%
DG BANK Deutsche Genossenschaftsbank AG	%	Nomura International plc	%
Warburg Dillon Read AG	%	Bear, Stearns International Limited	%
Banca d'Intermediazione Mobillare IMI S.p.A.	%	Toronto Dominion Bank	%
Daiwa Europe Limited	%	CA IB Investmentbank Aktiengesellschaft	%
Morgan Stanley & Co. International Limited	%	Banca Commerciale Italiana S.p.A.	%
J.P. Morgan Securities Ltd.	%	UniCredito Italiano S.p.A.	%
Salomon Brothers International Limited	%	BBV Interactivos, S.A., S.V.B.	%
Total			100%

Please return this form by fax to the Joint Global Co-ordinators c/o Hengeler Mueller Weitzel Wirtz (attn. Dr. Torsten Busch) at +49-69-72-57-73 by July 5, 1999.

Institution Name:	 	 	 	 										
Individual Name:	 	 •••	 	 	 									
Individual Title:	 	 •••	 	 	 									
Telephone Number:	 	 	 	 										
Telephone Number: Signature: Date of Designation:	 	 	 	 										
Date of Designation:	 	 •••	 	 	 									
Name of Manager Receiving Order:	 	 	 	 										
Date of Order:	 	 •••	 	 	 									