GATEWAY TO THE INFORMATION SOCIETY:

A STRATEGY TO INCREASE EFFICIENY AND COMPETITIVENESS OF THE GERMAN TELECOMMUNICATIONS MARKET[1]

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ISSUE

Germany has fallen far behind the United States and the Nordic countries in terms of Internet penetration. The main reasons are the comparatively high local call charges and the incumbent operators' local access market dominance. Although the 1998 telecommunications liberalization delivered positive results in terms of prices and services, and encouraged competitors to enter the German markets, obstacles remain towards gaining competitive traction in Germany, particularly in the local market. Deutsche Telekom, the former state-owned incumbent, has sought to retain its market share by pursuing a number of anticompetitive practices. In addition, the regulatory climate has been protecting Deutsche Telekom. The consequences for the German economy are the following:

- Relatively high local call charges resulting in high Internet access rates on a metered basis
- Low Internet penetration, largely due to the high Internet access charges
- Lower economic growth rates as a consequence of the country's inability to embrace the Internet, e-commerce and related developments
- Lack of competitiveness of German business firms in the global marketplace due to higher production costs
- Uneven distribution of tariff reductions leading to a situation were certain consumer groups have not yet benefited from increased competition
- Overall costs to society and significant market inefficiencies as a result of Deutsche Telekom's anticompetitive practices
- Obstacles to new market entrants, efficient investment, and employment growth
- Strains in the trade relations with other countries.

These issues require immediate action if Germany doesn't want to be left behind in today's fast emerging market developments.

SCENARIO

For the purpose of this project, I will assume the role of a consultant advising a fictitious German telecommunications association, the "Coalition of Communication Users" (CCU), representing residential users, small and medium-size businesses and consumer and business groups. The association has tasked me with the development of a strategy to lower local phone and Internet access charges and to increase the efficiency of the German telecommunications services, especially with regards to increased customer choice.

EXECUTIVE SUMMARY

Three years after the complete liberalization of the German telecommunications market, serious shortcomings continue to exist. Internet access charges and local call charges in Germany remain comparatively high, hindering the development of the 'new economy' based on the Internet, e-commerce, and other developments. This is largely due to the overwhelming market share of the former incumbent. Deutsche Telekom continues to have a share of almost 80 percent in the fixed line network market and a *de-facto* monopoly in the local market. The firm has even succeeded in capturing nearly the entire emergent DSL market. New market entrants contend that problems in gaining competitive traction in Germany are a result of the numerous anti-competitive practices of the incumbent, a weak regulator, and a generally protective political climate.

German consumers and the overall economy pay the price for the incumbent's monopolistic share in the local network market in form of comparatively high local call and Internet access charges and significant market inefficiencies. The high Internet access rates translate into higher production costs for German business and decrease Germany's international competitiveness. Foreign and domestic investment is hampered and new employment opportunities remain unrealized. The situation leads to strains in the trade relations with other countries, especially the US.

This report demonstrates that:

- Deutsche Telekom must abandon its anticompetitive behavior and adhere with the measures set forth by the regulatory regime. This will establish functioning competition in all market segments, and enable Germany to move quickly to an information-based economy and reap the full benefits that such an economy has to offer.

- An alternative network to the incumbents fixed line network must be in place to determine the 'real' costs of the leased line, local call and Internet access charges.

- The government should commit itself to the scheduled divestment from its holdings in Deutsche Telekom to resolve the conflict of interest arising though the government's role as a policy maker for the telecommunications market and shareholder at Deutsche Telekom.

- The German government and the Bundestag must investigate the regulatory climate in Germany in order to determine whether changes to the current framework are needed to introduce meaningful competition, and to lower the Internet access charges.

- The efficiency and independence of the regulator must be reestablished, and legal commitments laid out in the Telecommunications Act must be enforced more rigorously, in order to create a transparent and predictable investment environment.

Collectively, these measures should lead to more transparency and predictability in the German telecommunications market, encourage foreign and domestic investment, and ultimately lead to lower prices in the local call and Internet access market, benefiting the economy as a whole. The measures should also ease trade constraints with the US and other countries interested in entering the German market.

To put the above measures into practice, the following strategic steps will need to be taken:

Domestic strategy

1) Judicial

- Initiate a class action against Deutsche Telekom on the grounds that Telekom's anticompetitive practices are limiting competition in the fixed network market, resulting in higher prices for consumers.

- Support a lawsuit that is currently being prepared by several new market entrants against the regulator's decision on the Teilnehmeranschlussleitung.

2) Legislative

- A bill shall be drafted laying out the timelines for the progressive divestment of the Federal Government from its holdings in Deutsche Telekom.

- A bill shall be drafted requiring the complete divestment of Deutsche Telekom from its legacy cable network.

3) Procedural

- Establish a parliamentary inquiry "enquete" commission to investigate whether changes to Germany's regulatory arrangements are necessary to ensure cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users, and if so what those changes should be. Special attention should be paid to the independence, neutrality, and efficiency of the German regulator.

- Reevaluate of charges for access to the local loop by the Regulatory Authority.

- Ensure that revised regulation on the licensing fees is cost-oriented and closer to the European average.

European Strategy

1) Judicial

- File a lawsuit under the European court system on the grounds that several legal requirements laid by the Directives of the EU, such as the requirements to segregate its accounts, are not carried out by Deutsche Telekom.

2) Legislative

- Recommend to the Commission a best practice price for access to the local loop.

International Strategy

1) Procedural

- Encourage the United States Trade Representative to step up its diplomatic efforts in Germany to build support for the proposed legislative and procedural steps.

In the course of building support and initiating legal action, negotiations will be pursued with Deutsche Telekom and other stakeholders. German business and residential telecommunications users must have access to a variety of efficient, cheap and technologically advanced services, offering excellent and timely customer service. New market entrants must be able to plan effectively their business strategies in a transparent and predictable environment with a strong regulator and a pro-competitive government. Although these seem to be evident, the federal government takes care to protect Deutsche Telekom's market share and establish a leading position for the company in new market segments.

This is due to the following reasons:

- The current government's traditional political base is amongst labor unions. Labor has repeatedly advocated a relaxation of the regulatory regime and blamed the job losses at Deutsche Telekom on market liberalization. The ruling coalition is therefore careful in taking bold steps to promote more competition against Deutsche Telekom.

- Due to its all-time high budget deficit, the Finance Ministry is reluctant to take a pro-competitive stance. Measures taken to improve the competitive situation could possibly lead to a decrease in the value of the government holding in Deutsche Telekom and hence affect the federal budget.

- The public offering of Deutsche Telekom was a great success and many Germans, encouraged by the federal government, invested in the stock market for the first time. The share price has since plummeted and the federal government feels responsible to protect the stock against further downturns.

- The regulator seems to lack understanding on how seemingly minor irritations by Deutsche Telekom have a large impact on the competitors. In addition, the regulator appears to lack authority since several requirements laid out by the regulatory regime have not been properly enforced to date.

- The German government fears that competition would permit companies to skim off profitable business and urban customers while leaving the incumbent insufficient resources to provide equally good service to unprofitable sectors.

To overcome these concerns, increase market competitiveness and lower the local call and Internet access charges for all users, I recommend that the CCU take the following actions:

- The coalition shall build support amongst residential and business users, and consumer and business associations, including international associations for a more efficient and competitive telecommunications market, including lower Internet access and local call charges.

- The CCU shall call for the establishment of a Committee of Academics to further investigate the competitive situation in Germany. The Committee shall issue a report isolating steps that have to be taken by the government to embrace the online economy.

- A legislative strategy should be developed to convince the Bundestag to adopt a number of measures, including:

1) The proposed legislation on (A) the complete divestment of Deutsche Telekom from its legacy cable network, and (B) the divestment of the federal government from its holdings in Deutsche Telekom.

2) The establishment of a parliamentary inquiry commission.

3) The reevaluation of charges for access to the local loop by the regulator.

4) Ensuring that the new licensing fees are closer to the European average.

The support-building effort shall target members of Bundestag from all parliamentary groups, the Cabinet, and the Ministries who have a stake in the issue (economics, finance, and labor). Supportive government agencies, such as the Cartel Office, and the Monopolies Commission, shall be engaged in garnering support amongst government officials. To gain the support of the government, it is vital that the CCU gets the consensus, or at least appeases the opposition, of the labor unions. In addition,

- The coalition shall pursue a media strategy which aims at building public support and informs the public about the shortcomings of the competitive environment.

- The coalition shall work in conjunction with, and coordinate its efforts with, such domestic and foreign competitor associations as the VATM, Breko, and CompTel.

Structure of the Document

The background section gives an overview of the current market shares of the competitors and the incumbent, examines the price development in the different sectors, lays out the challenges of the new market entrants in gaining competitive traction, and gives a description of the main stakeholders. The economic analysis presents the market and structural barriers facing new market entrants, establishes the importance of the interconnection fees, evaluates the economic impact of an increase of competition in the local network market and gives an estimate of the expansion of usage resulting from a given change in Internet access charges. The commercial analysis explores the obstacles faced by the competitors and the intuitional analysis examines the independence and authority of the regulatory body. An overview of the legal provisions is given in the legal analysis. The project also includes an analysis of the substantive policy issues; the political section provides an extensive stakeholder analysis. The analysis section is followed by recommendations, which leads to a comprehensive strategy paper laying out the steps to be taken to put the recommendations into work.

I. INTRODUCTION

I.A. ROLE OF THE TELECOMMUNICATIONS SERVICES SECTOR

The German economy is struggling with slow economic growth rates, persistently high unemployment, and high government outstanding debt. A central reason for the stagnant economic performance is the country's inability to meet the challenges of the communications revolution and to embrace the Internet, e-commerce and other developments. It has long been recognized that the telecommunications industry is of vital importance to the development of the information-based economy. A modern, cost-effective, timely and innovative telecommunications system is widely seen as vital to sustained economic development. The German government and the European Commission have long recognized that the telecommunications services market is a significant catalyst of economic growth.[2] According to the German government, the Internet and new information and communications technologies offer a wide range of possible applications, thus generating opportunities for new products and creating jobs.[3] The federal government recognizes that electronically supported commercial activities offer companies a wide range of opportunities to increase their competitiveness in the global marketplace. Electronic commerce translates into productivity growth and cost savings, and "enables companies to react faster and more flexibly to customer requests and market changes".[4] This is increasingly important as the global marketplace replaces local or regional markets, and is a crucial factor in the competitiveness of German business firms. The government acknowledges the central role of the telecommunications and infrastructure policy and the importance of a competition-oriented sectoral economic policy, stating as its objective the promotion of competition structures in the telecommunications market. In addition, policies "should support developments that will make using the Internet cheaper, faster, more secure, better and more user-friendly".[5]

And yet, Germany continues to lag behind the Nordic countries and the United States in terms of overall Internet use, especially among small and medium-sized firms (see Figure 1 and 2).

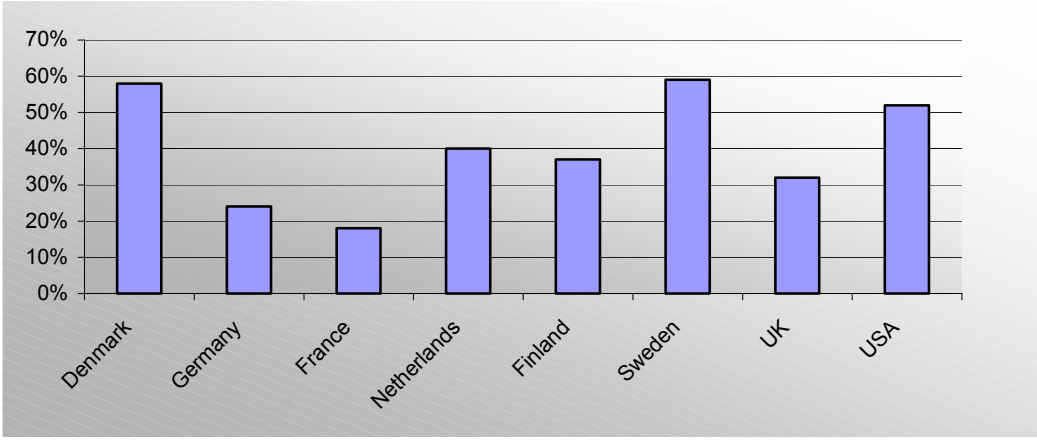
[2] "Europe – An Information Society for All," Communications on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000. Available at www.europa.eu.int.

[3] Action program by the German Government: "Innovation and jobs in the information society of the 21 century", November 1999. Available at http://www.bmwi.de/Homepage/download/english/innovation_and_jobs.pdf.

[4] Ibid.

[5] Ibid.

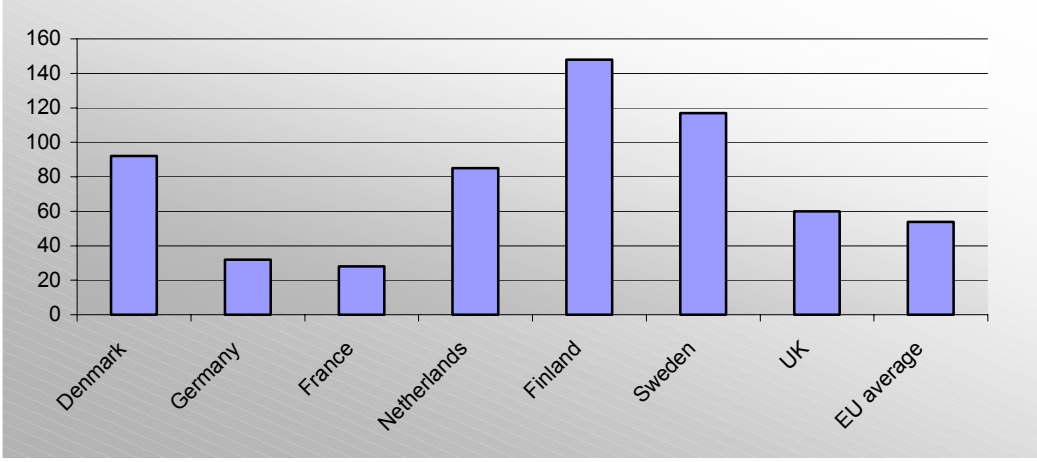
Figure 1: International comparison of percentage of Internet users in selected countries.[6]



Source: Sixth Report on the Implementation of the Telecommunications Regulatory Package, European Commission, December 2000, data collected from national regulatory authorities and Nua Internet surveys, at www.nua.ie.

[6] The figures in the chart are based on data collected from non-standardized sources and should therefore be treated as indicative estimates. In particular, the definition of a "user", i.e. a person having access to the Internet either at home or at his place of work or education, might be interpreted in slightly different ways. The data reflect the situation in July/August/September, with the exception of Denmark (April).

Figure 2: Number of Internet hosts per 1,000 inhabitants, January 2000.[7]



Source: Sixth Report on the Implementation of the Telecommunications Regulatory Package, European Commission, December 2000, data based on ISC, at www.isc.org and OECD, at www.oecd.org.

Numerous studies have confirmed the key role of the information and communications technology sector in bringing about the sustained productivity growth experienced by the United States over the past five years.[8] And yet, structural reform of the German product markets, especially those relating to the communications sector, remains insufficient if the country wants to embrace the 'new economy' and experience similar growth rates. European countries that have successfully adopted the information society, such as Finland, have been much more successful in fueling economic growth. The three Nordic economies, Sweden, Finland and Norway, were ranked just behind the US at the top of the list by the Economist Intelligence Unit's "e-business-ready" ratings. While the UK ranks a comfortable 6th due to its low Internet access charges, Germany lags behind in 13th. The hierarchy suggests that e-business requires more than simply a large or robust economy, and that the connectivity, or the readiness of the communications infrastructure to handle Internet traffic, is vital.[9]

[7] An Internet host is defined as a domain name with an associated Internet Protocol access record, and has become a standard indicator used by many studies of the growth and spread of the Internet. Although hosts range from a single desktop computer to powerful servers acting as multiple 'virtual' hosts, this measure gives a rough indication of the minimum size of the Internet. The Internet hosts considered are those registered using either a country Top Level Domain name such as ".de" or ".uk", or a generic name such as ".com" or ".org". In accordance with the Internet Software Consortium's (ISC) methodology, Internet hosts under generic Top Level Domain names have been assigned to EU Member States on the basis of the proportion of total generic Top Level Domain names registered by users in each country. However, there is no straightforward means of assigning these Internet hosts to geographic locations, particularly at the subnational level, and there is not necessarily any correlation between a host's domain name and its physical location.

[8] For example, Stephen D. Oliner and Sichel, Daniel E., "The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?". Federal Reserve Board, May 2000. Available at http://www.econ.lsa.umich.edu/~shapiro/seminar/oliner_sichel.pdf.

[9] The EIU's "E-business readiness ranking" is available at http://www.ebusinessforum.com.

II. BACKGROUND

II.A. MARKET SHARE: DEUTSCHE TELEKOM AND COMPETITORS

Three years after the liberalization of the telecommunications sector, competition has stagnated. The market share of the competitors in terms of turnover was only around 13.4 percent at the end of 2000, hardly up from the 12.7 percent market share in 1999. Deutsche Telekom continues to be the market-dominant firm in all main telecommunications services. In the fixed network market, the firm has a market share of almost 99 percent in local calls and nearly 80 percent in domestic long distance and international calls combined. In the newly emerging DSL market, Deutsche Telekom already dominates with a market share of more than 90 percent. The company's wholly owned subsidiary, T-Online, is the largest Internet service provider in the German market, with a market share of approximately 70 percent. In mobile telephony, the firms' subsidiary T-Mobil is the market leader, with a 40 percent market share.

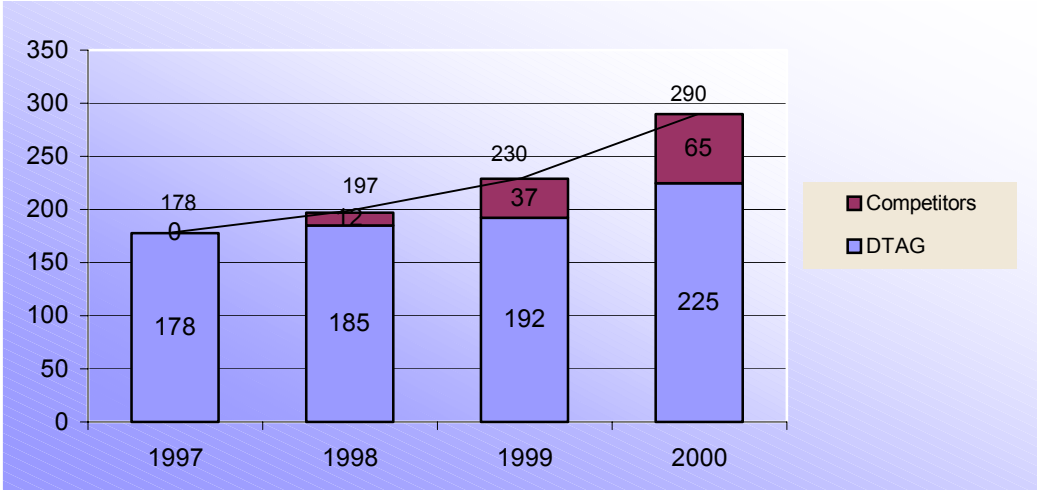
II.A.1. Fixed Line Network Communications

Until January 1, 1998, Deutsche Telekom had a legal monopoly on the provision of domestic and international public fixed-line voice telephony service. Although the regulatory structure allows for an unlimited number of market entrants, competitors have not been able to gain a significant market share in certain sectors of the fixed-line market.

II.A.1.1. Competition in the Fixed Network Communications Market

In the overall fixed network communications market, which includes domestic, long-distance and international calls, competitors were able to seize a market share of 22 percent. Out of the 290 billion call minutes generated in the year 2000, the competitors generated 65 billion minutes per day. As shown in Figure 2, Deutsche Telekom generated the remaining 225 billion minutes per day, corresponding to a market share of 78 percent. The competitors where able to increase their market share in the fixed network by 28 percent in the year 2000 from the previous year.

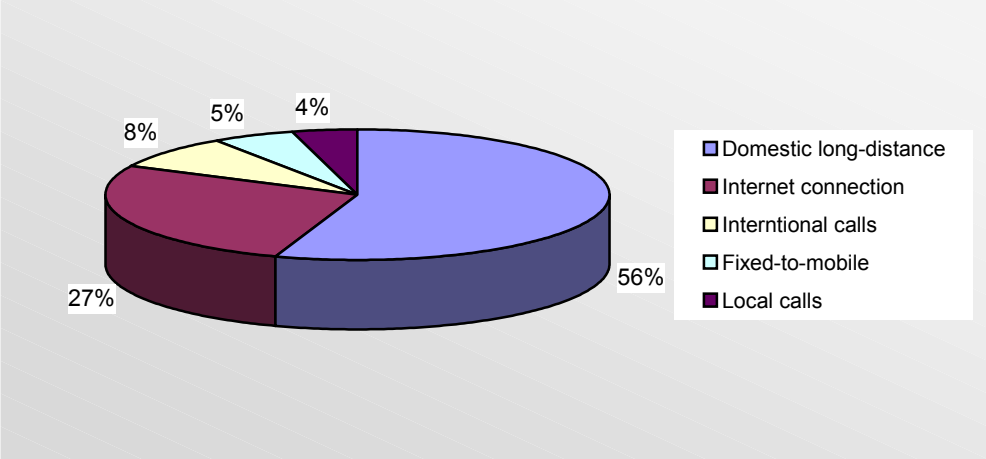
Figure 2: Total volume of call minutes in the fixed network 1997-2000 (in billion):



Source: Telecom Market Watch 2000, RegTP.

The focus of the competitors in the fixed-line market was on long-distance and international calls. In the battle for customers in the long distance and international market, which has been fiercely waged on the basis of price, Deutsche Telekom competitors have been able to gain a certain market share. The biggest share of the services offered by the competitors was domestic long distance, followed by Internet connections, and international calls. Although competition in the long distance market has increased rapidly, there is still a lack of competition in several major long distance markets, such as long distance calls to the US. Figure 3 gives an overview of the different services offered by the competitors.

Figure 3: Type of fixed network service offered by competitors in the first half 2000

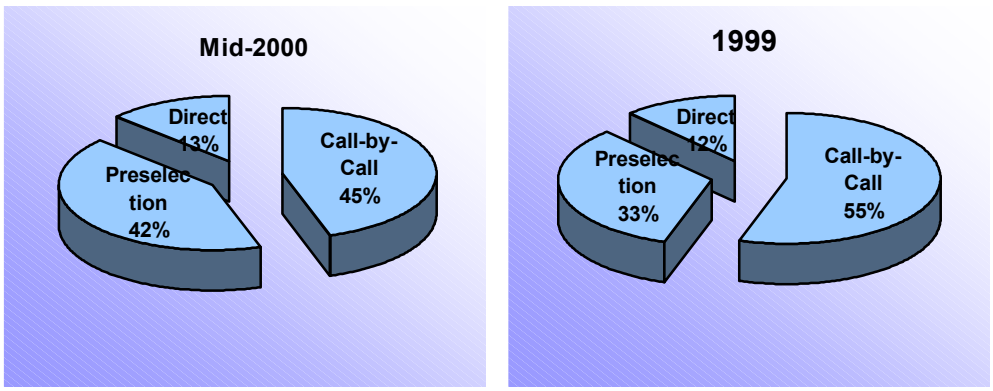


Source: Telecom Market Watch 2000, RegTP.

Although many German customers can now choose service providers, they mostly 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. The 65 billion call minutes the competitors generated in the first half of 2000 were chiefly reached by call-by-call services, followed by preselection.[10] Only a fraction of 13 percent were generated by direct calls. As illustrated in Figure 4, the form of utilization in mid-2000 remained unchanged from the year 1999 regarding direct calls. Preselection gained about nine percent over call-by-call services.

[10] Call-by-call phone calls are listed on Deutsche Telekom's phone bill to the customer, albeit separately. Preselection customers receive two bills: one from Deutsche Telekom for the phone lines, for local calls and any calls to special numbers, and a second bill from the preselected company. In direct services, the competitor offers full service, i.e. the phone line and all aspects of the connections. A customer who has fully changed to a competitive provider only receives one bill from that provider and all the telephone connection run via this company.

Figure 4: Form of utilization and customer service of the competitors (in the first half of 2000 and 1999).



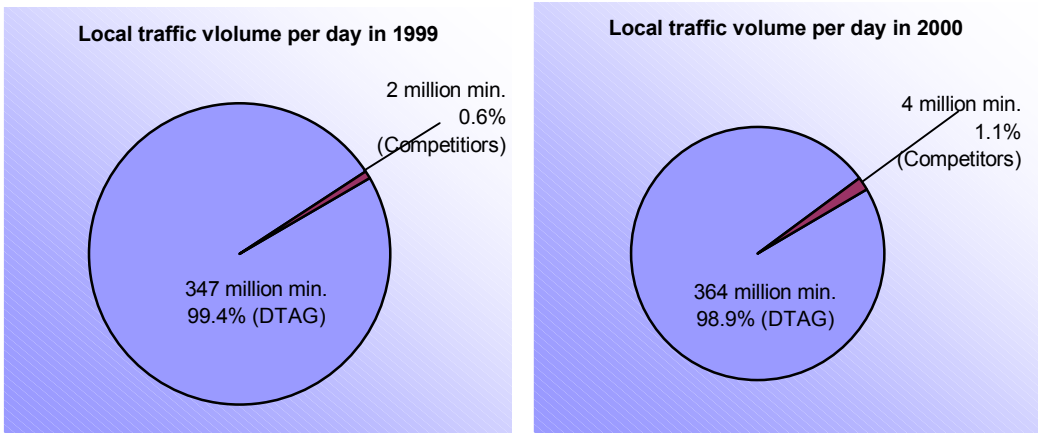
Source: Telecom Market Watch 2000, RegTP.

II.A.1.1.a. Competition in the Local Market

In the local network, the competitors' market share remains completely insignificant. As shown in Figure 1, by mid-2000, competitors were only able to generate local traffic of 4 million minutes/day, which is equal to a market share of 1.1 percent, nearly unchanged from the 0.6 percent market share recorded in 1999. Deutsche Telekom, on the other hand, succeeded in generating 364 million minutes of local traffic per day. With a control of over 98.5 percent of the end-users, Deutsche Telekom remains the *de facto* monopolist in the local market. According to a recent market study by Dialog Consulting on behalf of the German Competitive Carriers' Association ("VATM"), no significant growth of the competitors market share in the local network is expected in the foreseeable future. [11]

[11] See Study of Dialogue Consult at http://www.vatm.de/, "Presse", October 25, 2000 (in German).

Figure 1: Market development in the local fixed network, 1999 and 2000.

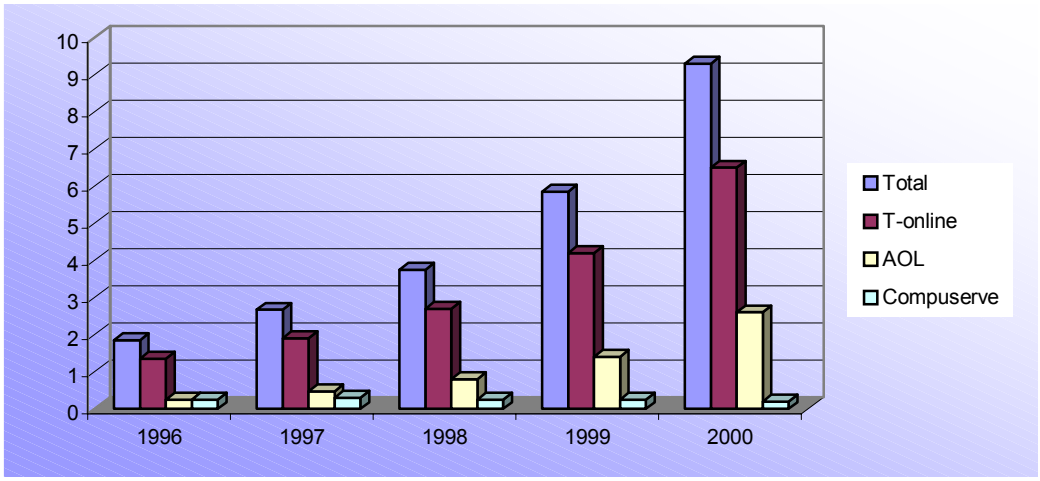


Source: Telecom Market Watch 2000, RegTP.

II.A.1.2. Internet and Online Services

Deutsche Telekom's wholly owned subsidiary, T-Online, is the largest Internet service provider in the German market. However, the firm does encounter competition from AOL and CompuServe. Competition is conducted primarily on the basis of quality (content), service and price. Between them, the three largest online providers in the German market had about 9.3 million subscribers in the year 2000. As shown in Figure 5, their respective market shares were approximately 70 percent (T-online), 28 percent (AOL), and about two percent (CompuServe).

Figure 5: Development of online subscriber numbers in Germany (in millions).



Source: Telecom Market Watch 2000, RegTP.

II.A.1.3. Digital Subscriber Line (DSL) Market

Deutsche Telekom gained 300,000 customers for its T-DSL connection by October 2000, and holds a market share of over 90 percent.[12] Demand for DSL is enormous, and the number of customers is expected to rise to 2 million by the end of 2001. [13] Some sources attribute Deutsche Telekom's dominance to its being the first mover in the market, exploiting a window of opportunity that quickly closed. Other sources argue that the company responded to the DSL technology with a successful predatory pricing campaign, offering broadband connections to customers far below its own costs.[14]

II.A.1.4. Broadband TV Cable Network

With 20 million connected households, the German TV coaxial cable network is the second largest in the world. Deutsche Telekom used to be the primary operator of all levels of the nationwide coaxial network. Other operators were in place, providing parts of the final "level four" cable infrastructure to the end-user, but there were no significant cable operators with the infrastructure to compete with Deutsche Telekom. After considerable pressure form the European Union, Deutsche Telekom divested itself of the majority ownership of its legacy cable systems. In doing so, the former monopolist divided its nationwide system into nine regional companies, roughly corresponding to the German provinces, and sought investors to assume majority control over those companies.

The bid process for the regional parts was not expected to actually turn over control to the purchasers any time soon. By the beginning of 2001, only three of the nine regional entities had been sold and there were no new buyers, partly because the price Deutsche Telekom asked for its cable networks was too high. A considerable amount of secrecy regarding the price and extremely conditioned contracts (i.e. the fact that Deutsche Telekom insisted in keeping a substantial minority control of all companies) scared away potential investors. It took one-and-a-half years from the launch of the cable bid process for Deutsche Telekom to conclud the separation of its legacy cable networks, selling the remaining six cable holdings.

II.A.2. Mobile Communications

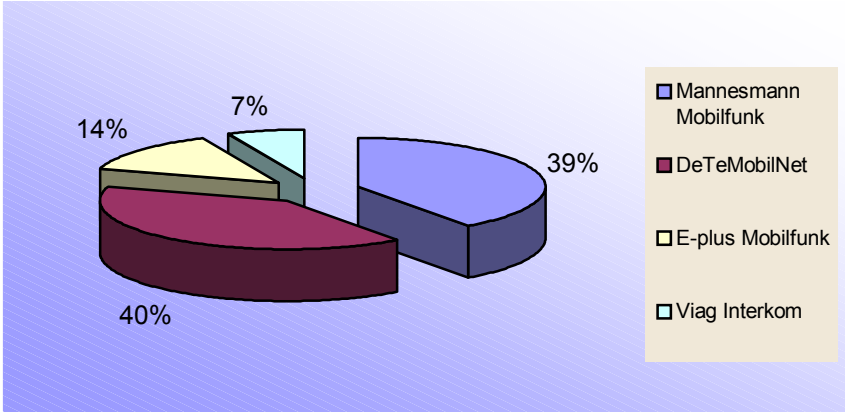
There are four mobile network operators in Germany. The two largest, T-Mobil (DeTeMobilNet) and Mannesmann Mobilfunk, have battled for market leadership over the past several years. As shown in Figure 6, T-Mobil and Mannesmann Mobilfunk command approximately 79 percent of the digital mobile telecommunications market in Germany, with T-Mobil seizing an estimated total market share of 40 percent at the end of the year 2000. E-Plus, the third mobile network operator, entered the market in 1994, two years after T-D1 and D2 commenced operations, and held an estimated 14 percent of the market at year-end 2000. Viag Intercom's E2, the fourth network operator, commenced operations in late 1998 and currently has an estimated market share of 7 percent.

[12] Reuters reported on November 6, 2000, that Deutsche Telekom faces no competition in the DSL technology, and that is has a market share of around 99.9 percent in the DSL market according to Josef Bauer a member of Deutsche Telekom's board of managers.

[13] Yahoo-Finance, November 6, 2000 at www.yahoo.com.

[14] A. Lipman, VATM testimony "Propositions regarding the competitive and regulatory situation in the German telecommunications market".

Figure 6: Market shares of the competitors in the mobile market



Source: Telecom Market Watch 2000, RegTP.

II.A.3. Data Communications and Information and Communications Systems

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

II.A.4. License Holders

The number of registered service providers in the German market has grown rapidly. More than 1,800 providers are currently registered. The number of license holders has also been growing: by the end of June 2000, 305 companies had been granted a network or voice telephony license. In fixed line services 150 companies offer voice telephony services. About 90 of these companies have their own networks, and about 50 providers operate as resellers. Deutsche Telekom has signed interconnection agreements with 117 of its competitors. At the beginning of July 2000, Deutsche Telekom had 82 local loop access agreements. Around 55 of these competitors can now connect customers directly to their own access networks. According to the German regulator, this means that more than a quarter of the German population can connect to an alternative access network operator.

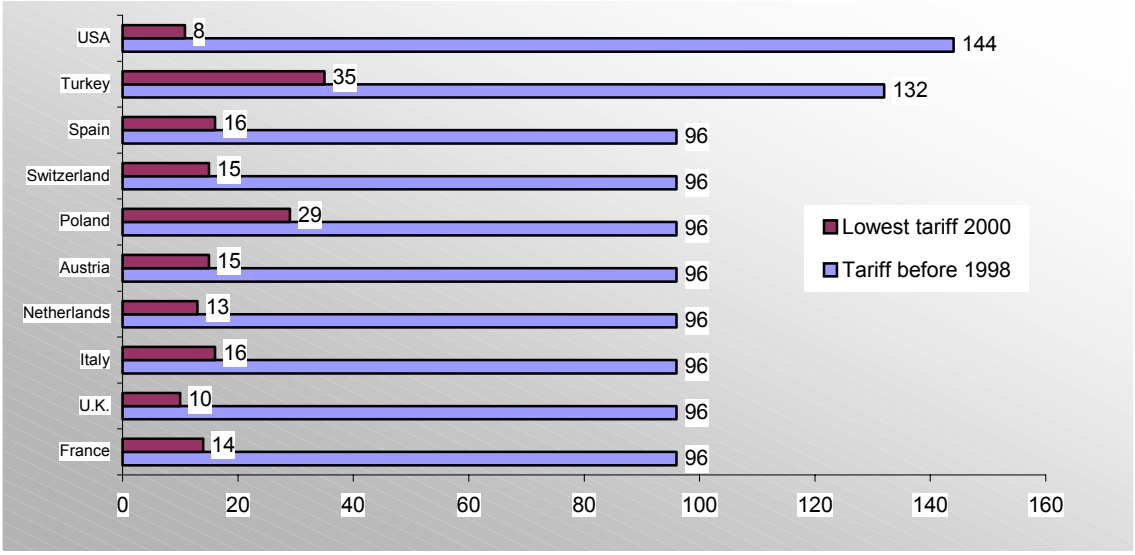
II.B. PRICE DEVELOPMENT

II.B.1. No Reduction in Local Call Charges

Despite the obvious lack of competition in the German telecommunications market, prices have reduced significantly. However, the reduction in call charges has not been evenly distributed among the different sectors. In the domestic long distance market, and depending on the time of the call, the consumer can pay up to 90 percent less this year than before January 1, 1998. Call-by-call prices fell up to 39 percent between the beginning of 2000 and the beginning of this year. Competition has also brought much lower consumer prices for foreign calls. For eight of the ten most important destinations, charges

have become about 90 percent cheaper since the liberalization in 1998 if the cheapest tariff is used (see Figure 7).

Figure 7: Price development for international calls to 10 major destinations (standard tariffs without discounts and on main business hours).

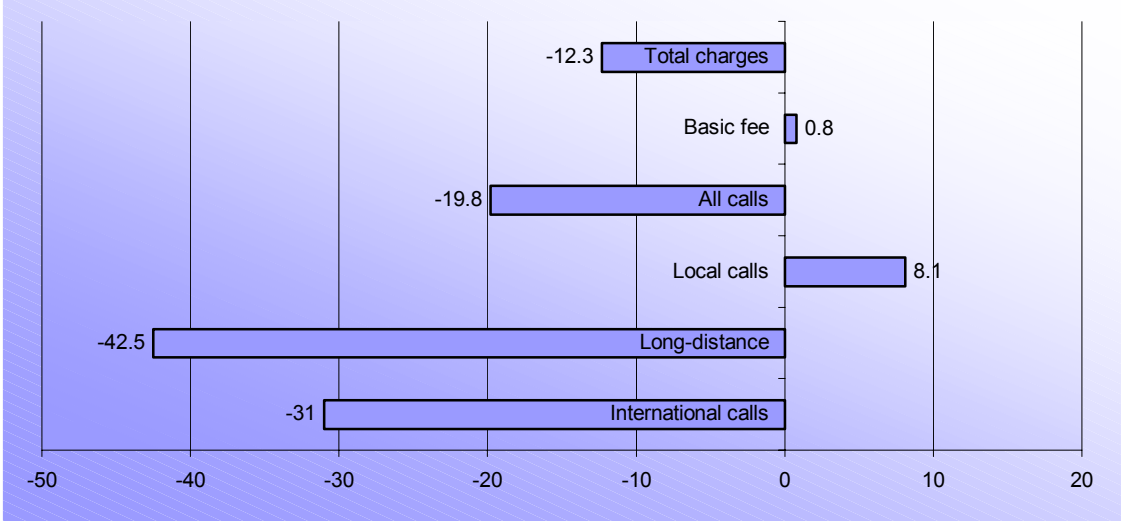


Source: Telecom Market Watch 2000, RegTP.

This price development is not mirrored in the local market. Instead, local call charges have increased by 8.1 percent, which, due to the low rates of inflation in the last years, constitutes a real increase in the price (see Figure 8).[15] In fact, some local calls can be more expensive than long-distance calls. Because Internet access charges largely depend on the local call prices, and because the use of the Internet is negatively correlated to the Internet access charges, the high costs for the German consumer are impeding higher Internet use.

[15] Regulierungsbehörde für Post und Telekommunikation, 1999 at www.regtp.de.

Figure 8: Development of the consumer price index of voice telephony between the end of 1997 and October, 1999



Source: Statistical Federal Office, RegTP, 1999.

II.B.2. High Internet Access Charges

Public Switching Telecommunications Network (PSTN) dial-up Internet access remains the most popular and readily available method for accessing the Internet. Dial-up access uses the existing narrowband voice telephony network and can therefore be used for Internet access without significant upgrades to the infrastructure. The availability and pricing of dial-up access therefore has a strong influence on the initial pattern of Internet penetration.

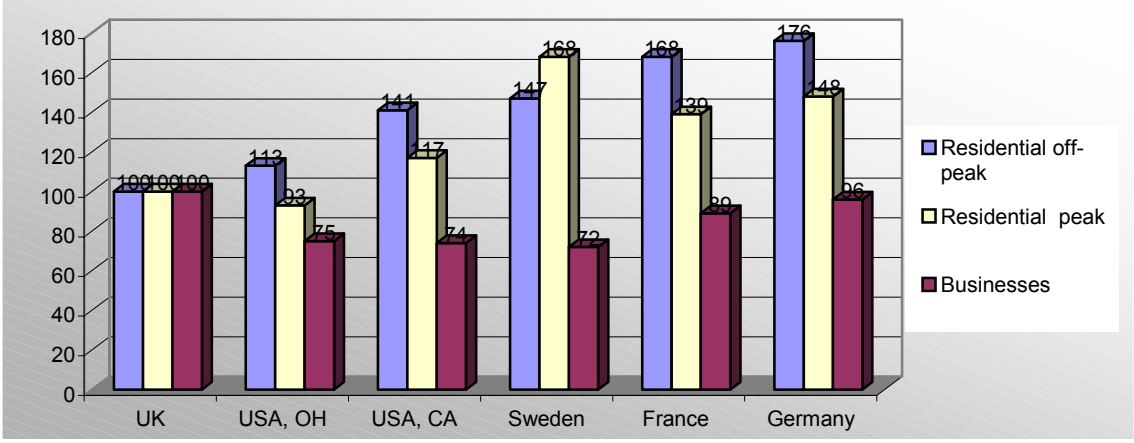
Oftel, the British regulator, conducted a cross-country comparison of Internet access charges.[16] The data was collected from the vast range of tariff packages available to residents and small to medium-sized businesses for major operators and service providers in each country, as of August 25, 2000. Large businesses were excluded in the analysis. All prices are indexed against the prices in the UK.[17]

[16] Office of Telecommunications (OFTEL) "International Benchmarking of DSL and Cable Modem Services", January 2001 at www.oftel.gov.uk/research/2001/dslb0101.htm.

[17] Prices vary across countries for several reasons: user density, terrain, and labor productivity (all of which influence costs) differ across countries; the prices of particular telecommunications services may be reduced or increased in the presence of cross-subsidies or of regulation; and profits may be high or low in the presence of monopoly characteristics or rate-of-return regulation. Comparisons are normally based on "baskets" of telecommunications services rather than the prices of individual items. For example, the price of a basket of residential telecommunications services is used to compare the prices faced by residential users. These prices include both fixed and usage charges, though normal practice is to compare the total of the two. The choice of basket can have a significant impact on the end result. Where consumption patterns in different countries adjust in response to different price structures, price comparisons based on one country's basket tend to favor that country. A number of OECD-wide average baskets have been constructed but they have limitations for comparing prices between a small number of countries. More sophisticated techniques have been advocated but have not been implemented. Lastly, comparisons can be made using either market or Purchasing Power Parity (PPP) exchange rates. The latter attempt to measure the internal purchasing power of individual currencies having regard to both traded and non-traded goods. Normal practice is to use PPP rates, but actual rates can be appropriate in some circumstances. Market exchange rates can be volatile, and PPP rates also vary over time: when (for example) the New Zealand dollar is low against other countries, other countries' telecommunications prices will be

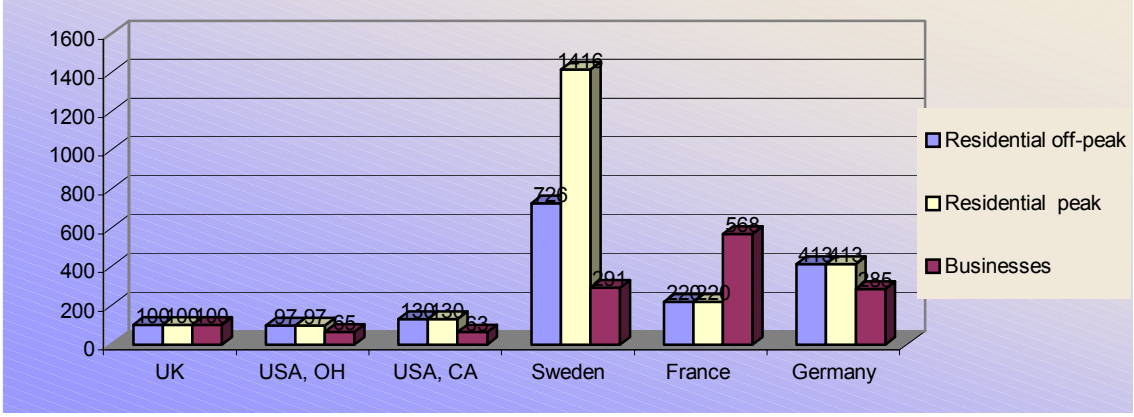
Figure 9 and Figure 10 compare residential off peak dial-up PSTN Internet access prices in four European countries, and two US states (California and Ohio) at peak and off-peak hours for two different usage patterns.

Figure 9: Comparison of residential off-peak and peak and business dial-up PSTN Internet access prices for a consumer usage pattern of 20 hours per month.



Source: Oftel, International benchmarking study of mobile services and dial-up PSTN Internet access, December 2000.

Figure 10: Comparison of residential off-peak and peak and business dial-up PSTN Internet access prices for a consumer usage pattern of 150 hours per month (always on).



Source: Oftel, International benchmarking study of mobile services and dial-up PSTN Internet access, December 2000.

correspondingly more expensive relative to New Zealand's. In the Oftel figures, the price in a particular country of a selected basket of telecommunications services has been expressed as a percentage of the UK price, after converting at the exchange rate selected for the comparison. Results above 100% represent prices that are more expensive than prices in the UK and results under 100% are cheaper.

The data clearly shows that Germany is one of the most expensive countries in residential dial-up PSTN Internet access prices.[18] A German consumer spending 20 hours per month on the Internet has to pay 76 percent more during off-peak hours and 48 percent more during peak hours than a British Internet user. If the German consumer wants to spend an unlimited number of hours on the Internet per month, its charges are as much as 313 percent higher during off-peak and peak hours than the charges for a British consumer.

The picture is slightly less gloomy for small and medium-size businesses, with rates for Internet use of 20 hours per month below the rates charged in the USK, and only 30 percent higher than in the US state of California. If, however, the businesses choose to be 'always on' the Internet, rates are 185 percent above the British rates and 352 percent above the rates charged in the US state of California.

II.B.3. Price Development in the DSL Market

Digital Subscriber Line (DSL) services provide high-speed telecom connections to consumers over the local copper loop. DSL is relatively new (particularly in Europe) but expected to become increasingly important in giving consumers access to fast Internet connections. Price comparisons of DSL service reveal that prices charged in Germany are very competitive.

In its International Benchmarking of DSL and Cable Modem study, Oftel compares services offered in four different countries: France, Germany, the UK and the US.[19] Data was collected for a range of tariff packages available to residential and small/medium-sized businesses for major operators and service providers in each country, as at October 12, 2000. The services offered in each country were compared on the basis of price and bandwidth both downstream to the consumer and upstream from the consumer. The results show that Germany's broadband services for residences are close to prices charged in the US and lower than those charged in the UK. For businesses, German DSL prices also turned out to be comparatively cheap, albeit very expensive in the higher bandwidth area. The bandwidth provided in the US is, in both cases, much higher and cheaper than the bandwidth provided in Germany and the UK.

II.C. MARKET GROWTH

According to the German regulator, revenues in the telecom services market in Germany rose by 10 percent in 1999, from around DEM 86 billion to about DEM 95 billion (see Table 1). The key driver of the 10 percent increase was mobile communications. The growth of mobile telephony in 1999, a result of a 70 percent leap in customer numbers, more than offset the fall in fixed telephony revenues, itself the result of price cuts. Carrier service revenues more than doubled due to the increase in interconnections between fixed networks, and between fixed and mobile networks. The growth in other services[20] was largely due to the Internet boom and related data services.

[18] The OECD, in its Internet Access Price Comparisons came to different results due to different baskets used. In the OECD Internet Access Price Comparisons, Germany was found to be above the OECD average in the baskets for 20 hours at off-peak, 30 hours at off-peak, and 40 hours at off-peak. Germany's Internet access charges were also found to be substantially higher in the "always on" basket. The underlying data of the study was published in the 2001 Communications Outlook, available at www.oecd.org.

[19] Office of Telecommunications (OFTEL), "International benchmarking study of mobile services and dial-up PSTN Internet access", December 2000 at www.oftel.gov.uk/feedback/benc1200.htm.

[20] Other services include data services, Internet access, carrier's revenues from equipment, telephone directors, and radio communication services (broadcast transmitters, satellite services).

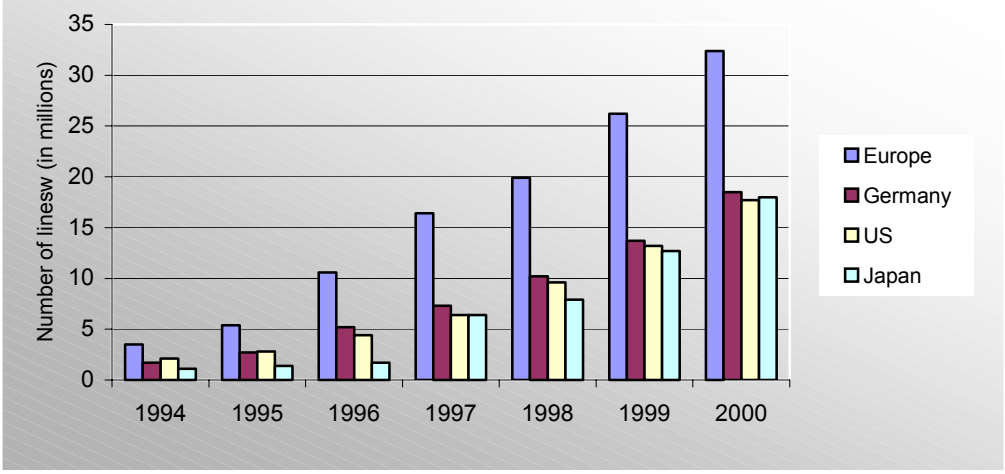
Table 1: Telecom services market revenues (DM billion).

	1998	1999
Fixed line services	45.8	41.9
Mobile telephony	18.6	24.9
Leased lines	2.1	2.1
Carrier services	3.5	7.1
CATV	4.5	4.6
Other services	11.9	14.9
Total	86.4	95.5

Source: Telecom Market Watch 2000, RegTP.

The number of telephone lines in Germany was expected to reach 50 million by the end of the year 2000. Germany has invested in the digital (ISDN) technology much more readily than other countries (other countries focused more on the development of DSL, which is considerably faster than ISDN). ISDN lines are likely to account for 37 percent or, 18.5 million of all lines in Germany. Figure 11 compares the growth in digital ISDN lines in Germany to other countries, showing that the German infrastructure capacity is being modernized at considerable speed.

Figure 11: Growth in ISDN lines in various countries (1994-2000)



Source: Telecom Market Watch 2000, RegTP.

Besides basic rate[21] and primary rate ISDN[22], copper pairs are most recently used for broadband DSL lines.[23] DSL, or digital subscriber lines, use a special transmission technique to give customers high bit rate access using a standard telephone line. Although the development of DSL is considerably slower in Europe than the US, Industry analysts see Germany as one of Europe's most attractive markets for broadband local access. Market analysts forecast the number of DSL lines will exceed 10 million by 2008 (Deutsche Bank Research).

The mobile communications market has grown rapidly in recent years. According to Deutsche Telekom estimates, this market expanded to 23.2 million subscribers in December 1999 from 13.5 million subscribers the year before. Nevertheless, Germany has a relatively low mobile telephony penetration rate. Only 28 percent of the population subscribed to a mobile telephony service as of December 31, 1999. By way of comparison, the mobile telephony penetration rate was approximately 66 percent in Finland, 57 percent in Sweden, 53 percent in Italy, 52 percent in Austria, 41 percent in the United Kingdom and 35 percent in France.

II.D. EMPLOYMENT DEVELOPMENT

According to the annual report of the Regulatory Authority, developments in telecommunications continue to have a positive effect on employment figures. At the end of the year 2000, 239,000 workers were employed in the telecommunications services market, an increase of almost nine percent from the year 1998. As shown in Figure 12, growth of employment was particularly strong with the competitors to Deutsche Telekom, who increased their workforce from 40,5000 workers in 1998 to 61,000 workers at the end of the year 2000, an increase of about 50 percent. Figure 12 shows that Deutsche Telekom reduced its staff levels by four percent in 1999. Employment figures at Deutsche Telekom rose again in 2000 due to the new acquisitions. If new acquisitions are not taken into account,

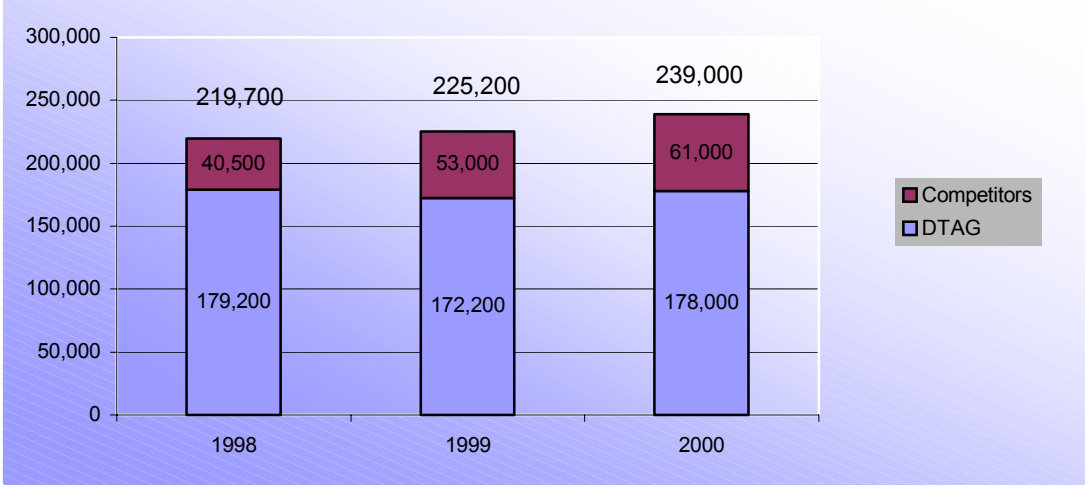
[21] 264 kbits/s speech channels per copper pair.

[22] 1,564 kbits/s speech channel per cooper pair with two-wire transmission, and 3,064 kbits/s speech channel per copper pair with four-wire transmission.

[23] 1,246 kbits/s speech channels per copper pair with symmetric DSL (SDSL) technology.

the reduction of employment in the parent company has continued in 2000, reducing Deutsche Telekom's staff levels to about 165,000 workers.

Figure 12: Employment development in the German telecommunications market



Source: Telecom Market Watch 2000, RegTP.

II.E. OBSTACLES FACED BY THE COMPETITORS TO DEUTSCHE TELEKOM

Current developments in the German telecom market have reinforced the long-standing impression that the incumbent's strategy of price squeezes and delayed delivery of vital services to competitors continues to seriously undermine the entry of competitors into lucrative market segments. Deutsche Telekom has not only striven to defend its traditional markets by all means, but also has blocked competitors from entering emerging markets such as DSL and advance wireless services. The competitors contend that Deutsche Telekom uses numerous anti-competitive practices, such the creation of artificial bottlenecks for interconnection, burdensome interconnection rules, an excess of provisioning intervals for collocation space, and predatory pricing in emerging telecom markets, to maintain its market share. [24]

Competitors contend that notwithstanding the incumbent's practices, the German Federal Ministry of Economics and Technology and the German Regulatory Authority have generally adopted an overly passive and accommodating stand on Deutsche Telekom's anti-competitive activities.[25] In fact, the official regulatory climate itself seems to be less favorable of competition in recent times. The Ministry of Economics and Technology announced that it intends to roll back several competitive safeguards previously implemented by the German regulator, for instance the release of Deutsche Telekom from the current price control mechanism, which was initially adopted to encourage competition. Circumstances especially worrisome to competitors are:

[24] See testimony of Andrew D. Lippman on behalf of the German Competitive Carrier Association (VATM) before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the Commerce Committee, United States House of Representatives, and September 7, 2000. Available at http://www.fcc.gov/transaction/voicestream-deutsche.html.

[25] Ibid.

- The anticompetitive practices of the incumbent:
  - Interconnection and Unbundled Local Loop problems,
  - Price dumping and cross-subsidization,
  - Lack of information on technical infrastructure,
- The role of the German regulator:
  - The lack of transparency in decision-making,
  - The lack of enforcement of decisions,
  - The exorbitant licensing fees.
- The Role of the Federal Government:
  - The Federal Government's involvement in the regulatory decisions,
  - The Government's stake in Deutsche Telekom.

II.E.1. Anticompetitive Practices of the Incumbent

According to the competitors, Deutsche Telekom engages in a variety of anticompetitive practices such as delayed delivery of vital services to competitors, price squeezes, cross subsidization, and obstructionism, undermining seriously the entry of competitors into lucrative market segments.

II.E.1.1. Price Dumping Cross-Subsidization

Strategic pricing, or dumping, techniques prevent competitors from entering into a field. The dominant company artificially keeps prices low until the competitors are driven from the market, after which point the prices for the products concerned are raised. Competitors contend that Deutsche Telekom's engagement in below-cost pricing in the markets for Internet and DSL prevented other firms from entering the market. Deutsche Telekom's prices in these markets cannot be matched by the competitors, leading to customer migration from the competitors back to Deutsche Telekom in established markets.[26] New entrants consider the incumbent's practice of offering bundled packages (for instance, the combined rebate for local and long-distance calls offered by Activ Plus) renders price authorization ineffective, since cross-subsidization can hardly be verified when services are bundled. New entrants expressed concern about the XXL arrangement, which offers free phone and Net access on Sundays and public holidays. There is no way that this tariff could be verified with respect to cross-subsidization. According to the competitors, this tariff constitutes a prohibitive barrier to market entry for long-distance network operators.

In the Internet market, T-online, Deutsche Telekom's Internet service provider, launched an unmetered Internet access based on a monthly flat fee for T-online customers in June 2000. The flat rate was very successful in nearly doubling T-Online's customer base. Competitors argue that Deutsche Telekom engaged in dumping techniques to gain customers because the flat Internet access had to be heavily subsidized by the parent company.[27] Competitors also allege that the introduction of the flat rate

[26] Testimony of Andrew D. Lipman, Oversight Hearing Foreign Government Ownership of American Telecommunications Companies Subcommittee on Telecommunications Trade & Consumer Protection, September 7, 2000 September 7, 2000.

[27] Yahoo-Finanzen "Telekom-Wettbewerber werfen T-online Preisdumping mit Flatrate vor", November 10, 2000.

was discriminatory because the firm did not offer a wholesale flat rate to the competitors for the use of the line. Competitors were therefore not able to duplicate the retail flat rate Internet access. Only recently did the German regulator require that Deutsche Telekom offer a wholesale flat rate. The company subsequently took its retail flat rate for Internet access off the market.

In the DSL market, Deutsche Telekom offers to provide DSL services to residential end-users for less than US $4 a month. Competitors argue that the service is subsidized because the initial deployment costs are much higher, at about US $300 per customer. The firm also offers several rate packages to its customers, which increase the price squeeze between interconnection charges (calculated on a per-minute-basis) and its end-user charges and cannot be matched by the competitors.

II.E.1.2. Local Loop Leased Line Charge

Deutsche Telekom's customer can already obtain an analog line for DEM 24.81 per month, which is just slightly above the newly approved price of DEM 24.40 the competitors have to pay for renting the "*Teilnehmeranschlussleitung*". New market entrants argue that this small margin greatly reinforces the argument that Deutsche Telekom engages in price-squeezing and that they cannot compete in the local market without serious cross-subsidization. Deutsche Telekom's announcement at the end of December 2000, to raise the charges for leasing a copper double par from the former DM 25.40 per month to approximately DM 34 as of April 1, 2001, an increase of more than 33 percent, raised widespread criticism by the new market entrants. [28] Deutsche Telekom also planed to raise up-front charges for switching a Deutsche Telekom customer to a competitive unbundled local loop carrier from DEM 191.64 to DEM 248.47. Upon termination of the lease of line, Deutsche Telekom planed to charge its competitors DEM 204.21 instead of the current DM 107.70 per line. Although the regulatory authority decided not to approve any of the outrageous demands of Deutsche Telekom, the announcements resulted in significant uncertainties in the new market entrants' network planning.

II.E.1.3. Interconnection and Unbundled Local Loop Problems

The key to local competition in Germany lies in access to the local loop of the incumbent network operator and to the collocation spaces for interconnection with the incumbent's local network. Competitors argue that the Deutsche Telekom discriminates by failing to provide timely provisioning service for collocation space and unbundled loops and by totally inadequate operations support systems ("OSS"), including access to service coordination functions.[29] The incumbent's practices of delaying and even preventing the necessary physical switch-over to the customer loop (mostly on the basis that no collocation space is available), has repeatedly been found to be an abuse of market power by the German regulator. The competitors claim, however, that despite those regulatory rulings, no measurable improvement has occurred and that the situation is currently worsening.[30] Competitors argue that additional delays also result from the incumbent's deliberate strategy of retiring relevant technical personnel and of outsourcing the provisioning of interconnection services to subcontractors who are not familiar with Deutsche Telekom's network. If call-by-call services are used to reach the end-users, which as shown above continues to be the principal access to end-users for the competitors, the incumbent

[28] Yahoo! Schlagzeilen "Liberalisierter Telekommunikationsmarkt in Gefahr / AG RegioNet: Mietpreis fuer letzte Meile verhindert Wettbewerb im Ortsnetz, February 15, 2001 at http://de.news.yahoo.com/010215/27/1cfah.html.

[29] Federal Communications Commission "Comments of QS Communications AG in the Matter of VoiceStream Wireless Corporation and Deutsche Telekom AG". December 13, 2000.

[30] CompTel's Comments in 2001 review under Section 1377 of the Omnibus Trade and Competitiveness Act of 1988 ("Section 1377"), Compliance with Telecommunications Agreements, January 2001.

complicates the situation by refusing to offer billing services. As a result, customers receive a number of bills, some of which might be for pennies only. In case the customer chooses preselection to utilize the services of a competitor, Deutsche Telekom increasingly delays the switching-over, with over ten percent of transfers being switched to the wrong carrier or not switched at all.

II.E.1.4. Lack of Information

Competitors claim that information about network planning, costs and technical infrastructure, and internal planning is difficult for new market entrant to obtain. Due to the lack of information on the technical infrastructure, competitors often have no information which infrastructure is in place when they solicit new customers in a new area. The information is relevant since the infrastructure can make a huge difference in the price the competitors are charged by the incumbent for the lease of the line and also in the speed of connection. The lack of information on internal planning and availability of collocation space leads to unused network capacity and technical facilities.

II.E.2. The Role of the Regulatory Authority

New entrants believe that the current system, under which the conditions of interconnection offers are established on a case-by-case basis, results in inefficient regulation of a series of aspects:

- Lack of legal security regarding the decisions and possible future modifications
- No possibility to plan business strategies in advance and take a decision before a market problem becomes acute
- Lack of transparency and lack of consultation of the decision-making process.[31]

New entrants contend that the regulatory authority must intervene at an earlier stage, monitor the ROI, and set basic principles. The incumbent agrees with the new entrants that the decision-making process of the regulatory authority should be more policy-oriented and rely less on a detailed case-by-case approach.[32] New market entrants also believe that the regulator lacks efficiency and authority. Several decisions taken by the regulator, they allege, were not implemented by the incumbent. Finally, many competitors contend that the licensing charges demanded by the German regulatory authority are too high.

II.E.2.1. Lack of Efficiency and Authority

Over the past several years, the German regulator has not sufficiently discouraged behavior that has elements of strategic or predatory pricing. The most recent example is the regulator's conditioned approval of the incumbent's flatrate offering (making calls and surfing the Web on Sundays). According to the new market entrants the regulator bowed to Government pressure in approving the service over the strenuous protests of the competitors. Most recently, the German regulator did not seek to suspend Deutsche Telekom's offer to provide DSL services to residential end-users for less than US$ 5 per month. This price, in the view of many competitors, is clearly predatory and is much lower than in the United States where the DSL equipment is already significantly less expensive.

[31] European Commission "Sixth Report on the Implementation of the Telecommunications Regulatory Package", December 2000. Available at www.europa.eu.int.

[32] Ibid.

In addition, new entrants expressed concern about the increasing workload of the regulator and the complexity of the decisions that have to be taken. Although the body has a large staff, new entrants feel that the Ruling Chambers lack the necessary human resources. The situation is aggravated by the increasing complexity of the market and the growing number of cases to be handled. This has a negative impact on the quality of decisions, and encourages the Ruling Chambers to press the parties into conciliation — to the detriment of new entrants — and to ask them to continue with negotiations which are unlikely to result in an agreement, in order to avoid having to carry out the necessary inquiries.[33]

II.E.2.2. The Length of Procedures

The length of time required to reach decisions and cumbersome procedures are often pointed out as giving an advantage to the incumbent. Last year the Regulatory Authority engaged in negotiations with the incumbent for a new interconnection regime with network-element-based charges. This new regime was scheduled to be implemented by mid-2001. It is now put on hold by the German courts for procedural reasons, due to a lawsuit filed by Deutsche Telekom. While it is perfectly legal that Deutsche Telekom challenge the decisions of the regulatory authority, competitive carriers cannot efficiently plan at what time and at what rates interconnection and the ensuring number of lines will become available.

II.E.2.3. Exorbitant Licensing Fees

US industry has repeatedly criticized the exorbitant licensing fees that constitute a serious market barrier to new entrants. In the USTR's annual review of telecommunications trade agreement under Section 1377 of the Omnibus Trade and Competitiveness Act, two firms filed complaints concerning the licensing fees. [34] The fees are premised upon an up-front payment of administrative costs projected over a 30-year period, without possibility of a refund if a carrier ceases doing business in Germany or if administrative costs of the German regulatory authority decrease over time. A national voice license costs US$ 1.6 million and a national infrastructure license costs US$ 5.6 million. Fees for regional or city licenses are also exorbitantly high. Due to this high hurdle for market entrance, of the 305 entities that hold German infrastructure or a voice licenses, many of them only cover small regions or individual cities. According to the USTR, the costs of obtaining license are several times higher in Germany than in any other European country. The German courts litigated the issue but a ruling overturned a preliminary injunction against the charges.

II.E.3. The Role of the Federal Government

II.E.3.1. The Federal Government's Involvement in the Regulatory Decisions

According to the competitors, the pressure on the regulator to protect Deutsche reached a new stage with the release of the Position Paper of the Federal Ministry of Economics in August 16, 2000, in which the Finance Ministry advocates sharp cutbacks in regulatory authority and a lessening of restraints on Deutsche Telekom. The competitors also point to the Position Paper released on December 2000 by a member of the Federal Parliament, Klaus Barthel, that supports the relaxation of regulatory policies.[35] The

[33] European Commission "Sixth Report on the Implementation of the Telecommunications Regulatory Package", December 2000. Available at www.europa.eu.int.

[34] USTR "2001 National Trade Estimate Report on Foreign Trade Barriers", at www.ustr.gov.

[35] See Klaus Bartehl's Position paper " Einige Thesen zur aktuellen Debatte ueber die Situation aud den Telekommunikations- und Postmaerketn sowie aur Arbeit der RegTP", February 16, 2001. Available at http://www.barthel-spd.de/download/THESEN.PDF.

Ministry of Economics and Technology has publicly declared that it wants to lift the long-standing "ex ante" price control in certain sub-markets, meaning the German regulator will no longer review Deutsche Telekom's prices before they enter into force. According to the competitors, this measure will almost certainly encourage the former monopolist to engage in below-cost pricing for special customer groups, which will lead to a customer migration from the competitors back to the incumbent.

In addition, the federal government's position paper suggests dividing the German telecommunications market into several regional markets. The Paper advocates the release of the incumbent from the price control regime in several of these markets, even though it is within the purview of the German Cartel Office and the German regulator, not the Ministry, to determine the relevant markets. According to the competitors, control over Deutsche Telekom's prices is already difficult because the Ministry and the German regulator do not separate accounting for incumbent markets under price control from incumbent markets without price control. Without proper control over cross-subsidization through separated accounts, the separation into regional markets will allow Deutsche Telekom to reinforce its dominant position in these markets.

II.E.3.2. The Government's Stake in Deutsche Telekom

The German government holds a majority stake of 58 percent in Deutsche Telekom. Although it has repeatedly stated its intention to reduce its stake, it has up to date not committed itself to further reductions within a defined period.[36] The competitors argue that as long as the German government is a major shareholder it will try to create a favorable market environment for the former monopolist.

II.F. HISTORY OF THE GERMAN TELECOMMUNICATIONS SECTOR

Public telecommunications services in Germany used to be a state monopoly. Deregulation began in 1989, with the transformation of the postal, telephone and telegraph services administered by the former monopoly provider into market-oriented businesses. The former monopoly provider was divided into three distinct entities along lines of business, one of which was the predecessor of Deutsche Telekom. At the same time, Germany also started the progressive liberalization of the German telecommunications market. Deutsche Bundespost Telekom, the predecessor of Deutsche Telekom, was transformed into Deutsche Telekom AG, a private law stock corporation, at the beginning of 1995.[37]

In 1996 the German Telecommunications Act *("Telekommunikationsgesetz")* came into force, creating the legal framework for the regulation of the telecommunications sector. The Act required the complete liberalization of the German telecommunications market from January 1998, as mandated by the directives of the European Commission. Since the Federal Government predicted that Deutsche Telekom would dominate the market after the monopolies fell, it defined the two main goals of the Telecommunications Act as to make possible a non-discriminatory competition for new market entrants, and to assure the functioning competition through interventions into the conduct of market-dominant providers.

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[36] This stake will be reduced to approximately 44 percent with the conclusion of the takeover of the US mobile company Voicestream.

[37] Securities and Exchange Commission, Deutsche Telekom AG, Annual Report Pursuant to Section 12 (b) or (g) of the Securities Exchange Act of 1934, April 19, 2000.

II.F.1. The Regulatory Framework

The Telecommunications Act permits practically unrestricted market access to qualified entrants. The principal objectives of the Act are the promotion of competition in the telecommunications sector through regulatory measures, the assurance of appropriate and adequate telecommunications services throughout Germany and the regulation of frequencies. The Act aims to achieve these goals chiefly 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.[38]

II.F.1.1. Regulatory Supervision

Since January 1998, regulatory functions under the Telecommunications Act have been carried out by a new supervisory body, the Regulatory Authority for Telecommunications and Post *("Regulierungsbehoerde fuer Telekommunikation und Post"* RegTP), established within the Federal Ministry of Economics and Technology *("Bundesministerium fuer Wirtschaft und Technologie"* BMWi*)*. One of the chief tasks of the regulator is to ensure that the incumbent, or any other market dominant provider, is not able to abuse its dominant position through its pricing policy. In addition to reviewing and approving the prices of market-dominant providers, the German regulator grants and revokes telecommunications licenses; controls network access and interconnection, assigns and supervises frequencies, administrates the issuance of new numbers, and imposes universal service obligations. Three-member decision panels *("Beschlusskammern")* formed within the German regulator are responsible for making the decisions. The regulatory body is supported by an Advisory Council *("Beirat")* consisting of nine representatives of each of the two houses of the German Parliament, but matters requiring Advisory Council consultation 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 be consulted with regard to tariff decisions. A president and two vice-presidents who are nominated by the German Government upon the proposal of the Advisory Council head the Regulatory Authority.[39]

II.F.1.2. Licensing Requirements and Allocation of Frequencies

Four licenses are required for the different services: class one licenses (mobile telecommunications services), class two licenses (satellite and radio services), class three licenses (operation of transmission lines that cross property boundaries and that are used to provide public telecommunications services[40]), and class four licenses (provision of voice telephony services to the public on the basis of self-operated telecommunication networks[41]). These licenses have been divided on a

[38] Ibid.

[39] Ibid.

[40] Transmission path licenses, or telecommunications services for the public, which are not covered by, class 1 or class 2. Transmission path licenses are granted upon application, with no restrictions. The number of license application made since the TKG took office surpassed the expectations. To date 559 Class 3 licenses have been grated, and currently 250 licenses are hold.

[41] Class 4 does not include the right to operate transmission lines. Instead, it covers those cases in which transmission lines are leased from other carriers or in which the connection is not based on cables (the definition of "transmission lines" only covers "cable facilities"). However, the Regulator may grant the right to operate "transmission lines" under Class 1, 2 to 3 together with a Class 4 license.

technical basis. Class 1 and 2 activities require radio waves for transmission, which are limited, and subject to distribution. Services under Class 3 and 4 can theoretically be offered by an unlimited number of providers.

To allocate the available frequencies, the Regulatory Authority is required to prepare a frequency usage plan. 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. The auction for the Universal Mobile Telecommunications Services (UMTS) third generation technology licenses took place in June or July of 2000. The number of licenses is generally unlimited and the Regulator must issue a license to the applicant unless any of the reasons outlined in the TA are grounds for denying the license.

Licenses and frequency allocations under the Telecommunications Act are subject to fees that are provided for in the Licensing Fees Ordinance *("Telekommunikations-Lizenzgebuehrenverordnung")* and the Frequency Fees Ordinance *("Frequenzgebuehrenverordnung"*). In addition, under the Frequency Usage Fees Ordinance *("Frequenznutzungsbeitragsverordnung"),* parties to whom frequencies have been assigned are required to make annual contributions to cover the costs incurred by the Regulatory Authority in planning and administering efficient and interference-free frequency usage. In applying for a license under the Telecommunications Act, the applicant generally has considerable flexibility in choosing the scope and geographical range of the products and services it wishes to offer. This flexibility is limited, however, to the extent that the applicant is required to provide universal services *("Telekommunikations-Universaldienstleitungsverordnung"*).[42] 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[43] are free to pursue opportunities in attractive markets, such as high-density urban areas, to the exclusion of less attractive markets.[44]

II.F.1.3. Special Requirements Applicable to Market-Dominant Providers

The Telecommunications Act subjects market-dominant providers to special rules and obligations, including most importantly:

- The prior approval (*ex-ante*) or retrospective review of tariffs, insofar as such tariffs relate to a market in which the provider dominates.

- The obligation to offer competitors, on the basis of unbundling, special network access (including collocation) to essential services and facilities used by it on a non-discriminatory basis.

[42] Universal service comprises voice telephony on the basis of the ISDN standards, assistance of an operator with regard to number of subscribers, and the publication of a directory, which contains the data of the subscribers who have not objected to the entry of their data.

[43] As of now only Deutsche Telekom, the main provider of voice telephony, is required to provide universal services.

[44] Securities and Exchange Commission, Deutsche Telekom AG, Annual Report Pursuant to Section 12 (b) or (g) of the Securities Exchange Act of 1934, April 19, 2000.

- The obligation to maintain segregated accounting systems to allow for transparency in dealings among the various licensed telecommunications services, and between such services and license-free services, in order to prevent, among other things, the cross-subsidization of services.

- The provision of universal services.

Market dominance under the Telecommunications Act is determined by reference to the German Act against Restraints on Competition (*Gesetz gegen Wettbewerbsbeschraenkungen"*). This Act provides that a company is presumed to have a dominant position if its market share equals or exceeds one-third of a relevant market. The decision whether Deutsche Telekom is market-dominant in a specific market is taken by the regulator in agreement with the German Federal Cartel Office.

II.F.1.4. Price Control

Tariffs and tariff related business terms and conditions for the telecommunications services of market-dominant providers are subject to regulatory oversight and control. The Telecommunications Act distinguishes between tariffs, which require prior regulatory approval, and tariffs which do not require 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.

Two basic approaches to prior approvals of tariffs are used: a price-cap approach and a cost-based approach. The Tariff Regulation Ordinance *("Telekommunikations Entgeltregulierungsverordnung"*) gives priority to the price-cap approach. 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.

Tariffs requiring prior approval, which are not dealt with under a price cap, are based on the calculation of the costs of efficient service provision. The costs of efficient service provision are based on the long-run incremental costs of providing a particular service. The Regulatory Authority commissioned an independent scientific institute, the economic institute for communication services ("*Wissenschaftliches Institut fuer Telekommunikationsdienste*" WIK), to develop an analytical cost model to determine the network access and interconnection rates.

II.F.1.5. Interconnection[45]

Under the Telecommunications Act and the Network Access Ordinances ("*Netzzugangsverordnung"*), every operator of a public telecommunications network is required to grant access to its network to the other users. A market-dominant network operator may do so by providing

[45] Interconnection rates are the tariffs telephone companies charge each other to pass calls between different networks; i.e., between the long-distance and the local network; or between competing local networks. End-users do not pay interconnection rates directly. The costs of interconnection is, however, reflected in the call charges, especially local calls.

either a link for all users (general network access) or via special connections (special network access), which includes the interconnections of networks. 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"). The access is granted on the basis of an interconnection agreement, which, *inter alia*, governs the compensation to be paid. Such agreement has to be based on objective criteria and must be non-discriminatory and transparent. The details for the interconnection are not provided for in the Act itself. Instead, the Act authorizes governmental regulations to provide for the details of the interconnection and the Telecommunications Act requires that the Regulator approve the interconnected changes.[46]

II.F.2. Regulation in the European Union

Germany is a Member State of the EU and is therefore required to pass EU legislation in its domestic law. The European Commission decided to liberalize telecommunications markets in the Member States by issuing directives providing for the abolishment of monopoly rights of the state-owned telecommunications operators. One of the most important of these directives was the full competition directive issued in March 1996, under which public voice telephony services were liberalized in the majority of the Member States, including Germany, with effect from January 1, 1998.

On June 23, 1999 the European Commission adopted a directive amending Directive 90/388/EEC (the "Cable Directive"), which deals with the regulation of broadband cable networks. The amendment to the Cable Directive requires that the telecommunications activities and broadband cable activities of market-dominant operators be structurally separated, i.e., dominant operators are required to set up a separate subsidiary for their broadband cable networks.

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

In January 1999, the Commission issued a decision on the harmonized introduction of the third generation of mobile systems (Universal Mobile Telecommunications Systems or "UMTS") throughout the European Community. This decision contains provisions for roaming, licensing and frequencies and set January 1, 2002 as the target date for effective provision of UMTS networks and services.

At the end of 1999, the European Commission published a review of European Union telecommunications regulations titled "Toward a New Framework for Electronic Communications Infrastructure and Associated Services." This review outlined the existing European telecommunications regulatory framework and a proposal for a new regulatory framework that would take into account the development of competition in the European telecommunications sector. The European Commission accepted comments submitted by market participants in the first half of 2000 and proposals for further actions which may include the amendment of existing directives in the telecommunications area.

On February 9, 2000, the European Commission published a draft regarding unbundled local loop access. This document described three complementary options for granting access to the local loop:

[46] Axel Spies and Jan F. Wrede, The New German Telecommunications Act, November 25, 1997 http://www.mttlr.org/volfour/spies.html.

unbundled access to the copper paired wire, unbundled access to the high frequency spectrum and high speed bit stream access. The deadline for unbundled services was January 2001, but few countries have stayed on pace.

II.F.3. International Obligations: GATS, BTA

One of the major driving forces behind the deregulations and liberalization of the German telecommunications market was the WTO Basic Telecommunications Agreement (BTA), which took effect on February 1998. Under the BTA, signatories made commitments to provide market access. They are to refrain from imposing certain quotas or other quantitative restrictions in specified telecommunications services sectors, and they are to provide "national treatment", under which they are to avoid treating foreign telecommunications service suppliers differently than national service suppliers. The EU has committed itself to provide market access and national treatment to all of its basic telecommunications services. The EU has also agreed to the pro-competitive principles set forth in the Reference Paper relating to anti-competitive behavior, interconnection, universal service, transparency of licensing criteria, and the independence of the regulator.

Under its WTO commitment, Germany agreed to provide to carriers from other WTO Member countries non-discriminatory access to and use of the German public telecommunications network. Germany also committed to abide by the principles found in the Reference Paper associated with the Basic Telecom Agreement. Under the Reference Paper, Germany must provide interconnection with Deutsche Telekom's network on an unbundled, non-discriminatory, cost-oriented and transparent basis, at any technically feasible point in the network. Germany also committed to make publicly available its licensing criteria and apply competitive safeguards when necessary to prevent anti-competitive conduct by the market-dominant provider.

II.G. MAIN STAKEHOLDERS

II.G.1. The Incumbent: Deutsche Telekom AG

Under the Telecommunications Act, Deutsche Telekom is viewed by the regulatory body as dominant in the market for public fixed network voice telephony services and in certain other markets. As a result, a number of the firm's tariffs are and may remain subject to regulation. When the former state monopoly was transformed it was divided into three different entities, one of which was the predecessor of Deutsche Telekom. The separation of the former state monopoly did not however go further in segregating the network and as a result the company holds a double monopoly in fixed-line voice telephony network and broadband cable network, in addition to its business operations. As a consequence, Deutsche Telekom is Germany's leading provider of interconnection and other carrier services to other telecommunications companies.[47]

With revenues of EUR 35.5 billion in 1999, the firm is Europe's largest telecommunications company and the third largest carrier worldwide. Despite market deregulation and the introduction of competition, the firm continues to be the largest provider of fixed-line voice telephony services to the public in Germany, providing nearly 48 million access lines to subscribers on December 31, 1999. The firm is also the world's leading ISDN operator, with 13.3 million ISDN channels in service. Deutsche Telekom owns Europe's largest Internet online service provider and access gateway, T-Online

[47] Federal Communications Commission "Comments of QS Communications AG in the Matter of VoiceStream Wireless Corporation and Deutsche Telekom AG". December 13, 2000.

International AG, with around 6.5 million subscribers in 2000. T-online reached a market share of approximately 70 percent in 2000, almost doubling its user base form the year before. The market share has chiefly been boosted by T-Online's launch of an unmetered Internet service, introduced in June. However, the monthly flat rate has failed to reap the required revenues and T-online has sunk deep into the red. T-online had its initial public offering in April 2000. The long-term plan is to restructure the company into a holding company with national subsidiaries to allow the units to respond more quickly to rapid changes in the market.[48]

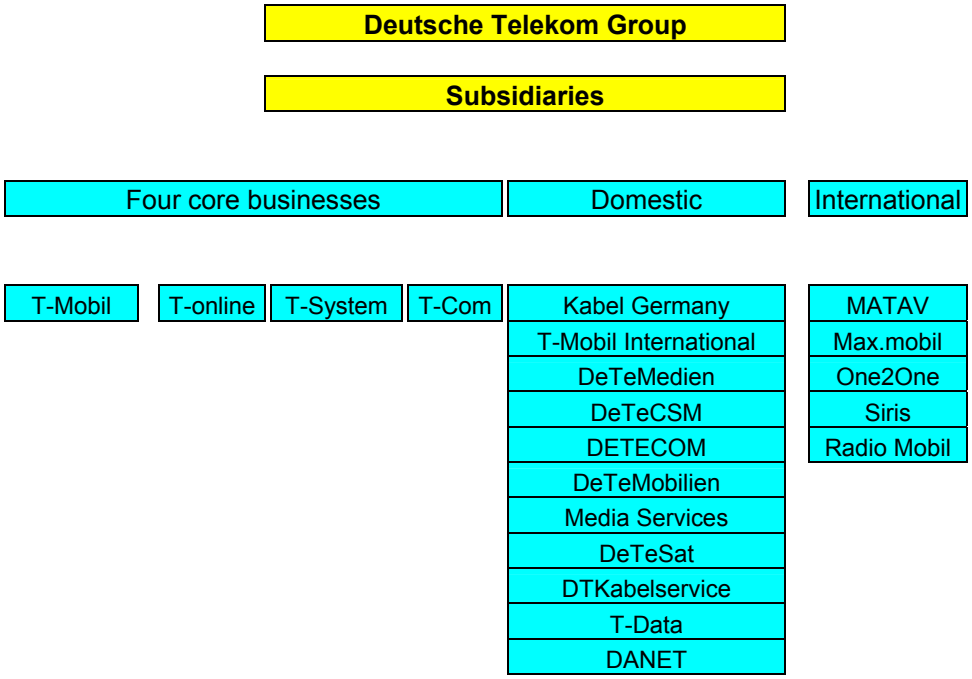
Deutsche Telekom also operates Germany's broadband cable network. At the turn of 1998/1999 the firm placed the core of the broadband cable business into a separate subsidiary, the wholly owned subsidiary Kabel Deutschland GmbH. Kabel Deutschland was further divided into nine regional companies, roughly corresponding to the German provinces in July 2000. In February and March 2000, Deutsche Telekom reached the first agreements to sell the majority interests of two regional companies. The firm plans to retain a substantial minority equity interest of at least 25 percent in each of these regional companies. The US based communications investment firm Callahan Associates acquired a 55 percent stake in the Cable network holdings in North Rhine-Westphalia and another 55 percent in Telekom's Baden Wuertemberg network. The London-based groups Klesch and Company bought 65 per cent of the network in Hessen. The remaining six cable holdings were unexpectedly sold a year later to a British-American joint venture, Klesch and Company and Liberty Media. The joint venture will acquire 55 percent of the cable holdings, with an option to acquire another 20 percent in the future.

In mobile communications, Deutsche Telekom is Germany's largest provider, with around 9.2 million mobile telephone subscribers as of December 1999. By the end of the year 2000, Deutsche Telekom's German mobile telephony subsidiary, DeTeMobilNet, had a market share of 40 percent. Between them, T-Mobil and Mannesmann Mobilfunk command approximately 79 percent of the digital mobile telecommunications market in Germany.

Deutsche Telekom is also a leading provider of data communications and data communication system solutions, such as corporate networks, in Germany. Due to rapidly expanding Internet usage and the increasing use of intranets by multi-location companies, this area is one of the fastest growing areas in the telecommunications field. To increase its presence in data communications and communications systems, Deutsche Telekom acquired an equity interest of 50.1 percent in debis Systemhaus, one of Europe's largest information technology/systems solutions providers. Figure 13 presents an overview of the structure of Deutsche Telekom's consolidated Telekom Group.

[48] Ibid.

Figure 13: Structure of the consolidated Deutsche Telekom Group

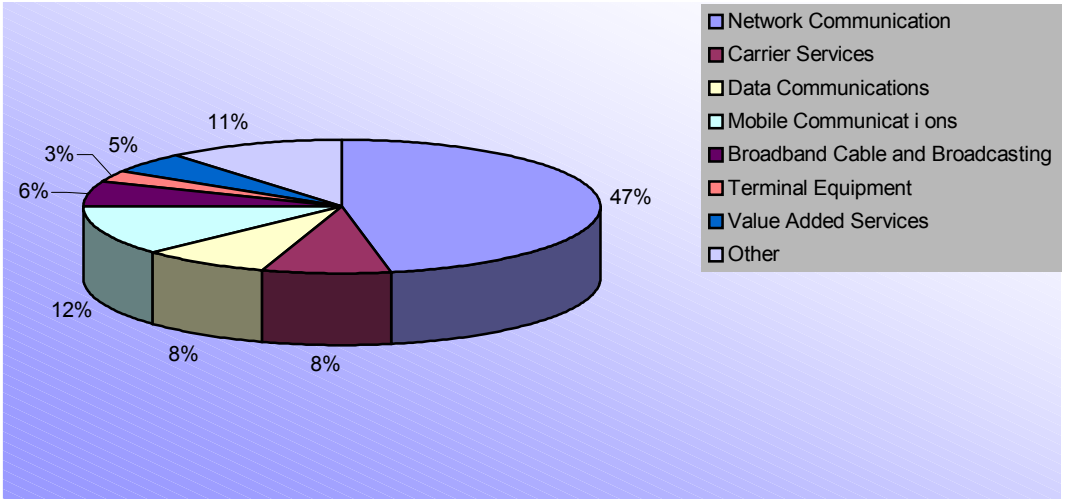


II.G.1.1. Revenues per Business Area

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. Deutsche Telekom also obtains revenues from interconnecting domestic and international network operators, from domestic and international data communications and systems solutions, and from mobile communications services. Other products and services offered include broadcasting and broadband cable, the supply and sale of terminal equipment, value-added services, and other ancillary services, including the online services offered by T-Online and other multimedia.

Revenues from activities outside Germany are generated by the firm's foreign subsidiaries. Figure 14 shows revenues from each of Deutsche Telekom's business areas for 1999 expressed as a percentage of consolidated net revenues for that year. Approximately 11 percent of the firm's revenues in 1999 were derived from activities outside Germany.

Figure 14: Revenues per Business Area



Source: Securities and Exchange Commission, Deutsche Telekom AG, April 19, 2000

Network communications, which include access services, local, national long distance and international calling services, and connections to mobile and online service providers, continues to be the main source of the company's revenues and profits. In 1999, Deutsche Telekom generated net revenues of EUR 16.7 billion (47.2 percent of the firm's total net consolidated revenues) from this area.

Deutsche Telekom is also a major player in various other countries, such as the United Kingdom, where it owns One2One, a wireless operator and MetroHoldings Ltd., a fixed line operator. In Austria the company owns max.mobil, a dominant wireless carrier, in Hungary MATAV, the incumbent fixed line operator. Other companies include Radiomobil in the Czech Republic, the Slovak incumbent Slovenske Tel, PTC/Era in Poland, UMC and UTEL in the Ukraine, Mobile TeleSystems CJSC in Russia and Multilink SA in Switzerland. In addition Deutsche Telekom has invested in mobile telephony in Malaysia, Indonesia and the Philippines.

II.G.1.2. Employees

Deutsche Telekom and its German subsidiaries employ about 178.000 workers. The company's management determined several years ago that its number of employees exceeded the number needed to operate in a competitive environment. Accordingly, Deutsche Telekom announced in 1995 its intention to reduce its workforce by a total of 60,000 full-time equivalent employees (excluding employees added through changes in the composition of the consolidated Deutsche Telekom group) by the end of the year 2000. If subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995 are excluded, the workforce reduction program of the firm successfully reduced the workforce in the parent company by some 7,200 workers, from 172,200 workers in 1994 to 165,000 workers at the end of the year 2000.

The workforce reductions, which are necessary to maintain the company's competitiveness, are taking place by means of normal attrition, severance packages, tide-over allowances, part-time work for older employees, financing assistance for civil servants giving up their status and leaving the company, and early retirement programs. A group-wide redeployment strategy is helping to ensure that the personnel requirements of all regions and specialization areas can be met. Pursuant to an agreement

signed with the trade unions in January 2000, there will be no dismissals due to rationalization before the end of the year 2004.

II.G.1.2.a. Civil servants

As of December 31, 1999, approximately 41.3 percent of the employees of Deutsche Telekom (excluding subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995) were civil servants. No employees hired after January 1, 1995 have been granted civil servant status. Pursuant to the laws that applied to the conversion of the former state owned company into a stock corporation, the civil servant employees preserved 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. 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*"). Deutsche Telekom is required to make annual contributions to a special pension fund established to fund such pension obligations.

II.G.1.2.b. Non-Civil Servants

As of December 31, 1999, approximately 58.7 percent of Deutsche Telekom's employees (excluding subsidiaries whose activities were not part of the consolidated Deutsche Telekom group at January 1, 1995) were non-civil servants. In addition to being covered by collective bargaining agreements, the non-civil servant employees are in general covered by the German Termination Protection Act (*"Kuendigungsschutzgesetz*"), which imposes various restrictions on the involuntary termination of employment. The vast majority of the non-civil servant employees are organized in unions, principally the German Postal Workers' Union (*"Deutsche Postgewerkschaft*" DPG). The German Postal Workers' Union was integrated into the Association of Labor Unions ("*Vereinte Dienstleitungsgewerkschaft*" ver.di), in March, 2001. The terms and conditions of employment and salary increases for these non-civil servant employees are negotiated between Deutsche Telekom and the unions.

II.G.1.3.*Deutsche Telekom Stock*

Deutsche Telekom's stock price has fallen about 40 percent since mid-June of 1999 due to the company's costly and risky expansion strategy, shrinking revenues and profits in onetime monopoly businesses that now face competition, and the broader market slide, particularly in the IT and telecommunications markets. T-Online went public on April 2000 and has since been struggling with a flagging stock price and management changes. A plan to list T-Mobil International on a stock exchange has been delayed pending the closing of the acquisition of the US mobile company VoiceStream.

In 1999, the stock traded as high as 70.70 Euro; at the beginning of April 2001 the stock had fallen to 26.27 Euro. During the last year the stock had fallen by 66.9 percent. The fall can be attributed to the costly 3G mobile telecommunications licenses. After news broke about the record revenues of $46.5 billion results on August 17, 2000,

stock prices of the bidders fell by 1 to 6 percent, reinforcing earlier losses. From a theoretical point of view, the auctioning of licenses amounted to taxing away the monopolistic profits that the companies would otherwise make. For the German Minister of Finance, the DM 100 billion in license fees were much welcome premium revenue.

The share price took an additional hit when investors learned about the miscalculation of the value of Deutsche Telekom's real estate assets.[49] To reduce its tremendous debt, estimated at about DM 120 billion, the company announced its separation from parts of its shareholding in the US telecommunications company Sprint and the selling off of most of its real estate holdings. The February news that the bid process for the company's remaining six cable network holdings generated approximately DEM 10 billion resulted in a two percent increase in the companies share value.

II.G.2. The Federal Government

One of the biggest problems for the government remains high unemployment. The country's jobless rate has been hovering around 10 percent for years. It was the single biggest issue in the 1998 general election and played a significant role in the demise of Helmut Kohl's government, which had been in office for sixteen years. The Social Democrat Party (SPD) attacked Kohl's Christian Democratic Union (CDU) for failing to invigorate the labor market, and the strategy worked. Now voters are expecting Chancellor Gerhard Schroeder to make good on his promise to create more jobs. Relief on the economic front has already been realized through an ambitious tax reform. However, optimistic expectations about the economic growth this year, fueled through an export due to the low euro, had to be tempered. The German Government recently corrected its optimistic predictions at the beginning of the year 2001, down to 2-3 or perhaps 4 percent. The main reasons are the continuing labor market rigidities and the inability of the country to embrace the information society.

The Government has repeatedly stated its goal to make Germany one of the leading Internet countries. Federal Chancellor Gerhard Schroeder said it was the government's aim to give all schools access to the Internet by the year 2001 and cautioned against "a split in society between those with and without access to the new forms of information and communication." However, in these last two years, following the complete liberalization of Germany's telecommunications market, the high cost of Internet access and telecommunication costs has been one of the primary factors holding back the growth the of Internet use in Germany. Although it is apparent that the increase in competition has a positive impact on employment figures and that the Internet access charges can only be reduced by a substantial increase of competition in the local fixed network market, the government has been reluctant to actively support the introduction of competition due to pressure from strong and vocal labor unions to relax the regulatory regime and price control mechanism of Deutsche Telekom.

[49] German shareholders initiated a lawsuit against Deutsche Telekom after the corporation corrected the value of its real estate holdings. The lawsuit is a novelty since shareholder lawsuits have traditionally not been used frequently in Germany. Due to sound media coverage, the list of plaintiffs had grown from 15 to nearly 2000 at the end of April 2001. See Wall Street Journal "American Way of Taking Firms to Court is Being Tried by European Shareholders"; page C1, May 3, 2001.

III. ANALYSIS SECTION

III.A. ECONOMIC ANALYSIS

The economic analysis examines the market and structural barriers faced by the competitors, establishes the economic importance of access to the Unbundled Local Loop and interconnection, assesses the economic impact of the introduction of more competition and provides a quantitative analysis of lower Internet access charges on consumer usage patterns.

III.A.1. Which Market and Structural Barriers are the New Market Entrants Facing?

New entrants must overcome significant barriers in order to offer a viable fixed network service. The key challenges facing new entrants to the incumbent market are:

- The incumbent's competitive advantage in the existing network
- Lack of incentive for Deutsche Telekom to introduce competition
- Organizational integration.

III.A.1.1. Deutsche Telekom's Competitive Advantage in Controlling the Existing Network

Deutsche Telekom has inherited the advantages of controlling extensive network coverage, economies of scale and a large customer base. The near universal coverage of the network gives Deutsche Telekom power of gateways between networks for which it can make interconnection charges. Ownership of gateways also allows the corporation to determine the capacity passing through a particular line or network. The local fixed network or public switching telecommunications network (PSTN) connecting to almost all residential and business premises is by far the most important part of the infrastructure for most forms of telecommunications services. Because the local access markets are characterized by relatively high economies of scale, competitors, who cannot afford to build their own local access lines, are highly dependent on the incumbents network. Service providers and consumers must have access to the PSTN in order to receive and provide services (or usage) through the network. Although some competitors may have invested in long-haul networks and in the fiber rings that surround big cities, the last golden mile to the end-users has to be either leased from DTAG for considerable amounts of money, or bridged by alternative solutions.

Considering the huge up-front investment to deploy local networks and the difficulties in getting rights-of-way, the most probable candidates for local loop competition were cable operators. However, until recently Deutsche Telekom was the main owner of the cable TV network. Due to the fact that Deutsche Telekom owned a majority of the cable network, the number of cable carriers offering telecommunication services, such as local call services and Internet access services, is very small. Deutsche Telekom had no incentive to develop competition between its cable and its telecommunications network. Considering that over 20 million German households are connected to the cable network, the shortcomings become apparent. The opportunity to unveil the real cost of the *Teilnehmeranschlussleitungen*

through competition has therefore been forgiven to date.[50] Other alternative technologies, such as wireless local loop techniques or connections via energy lines, are just starting to develop and might never be viable alternatives to reach the bulk of the end-users. The cellular network, which has established a strong market presence in recent years, serves as a complement to, rather than a direct substitute for, a fixed network and it remains to be seen whether it will serve as a substitute in the future. For the short and medium term, competitive carriers must therefore continue to rely on Deutsche Telekom's network to reach end-users.

III.A.1.2. Lack of incentives to Introduce Competition

Under the German regulatory framework, Deutsche Telekom has no incentive to open its network market to competition. The firm can readily use the monopolistic profits earned in the local market to engage in strategic pricing techniques in emerging market services through cross-subsidization.

Figures 14 and 15 illustrate the current situation in Germany. Due to the lack of competition, Deutsche Telekom can set the price in the local market. With the entry of competitors into the market, local call prices would fall and the firm would loose its monopolistic revenues. Taking the average daily call volume of Deutsche Telekom in 2000, and assuming that the introduction of more competition in the German market would lower the current per minute price of approximately DM 0.03 per minute by 33 percent to DM 0.02 per minute (which is a conservative estimate, considering that the international calls have been reduced by up to 90 percent with the entry of competitors), monopolistic daily profits of Deutsche Telekom would be as high as DM 3,640,000 per day.

Figure 14: Monopolistic Profits: Local Market

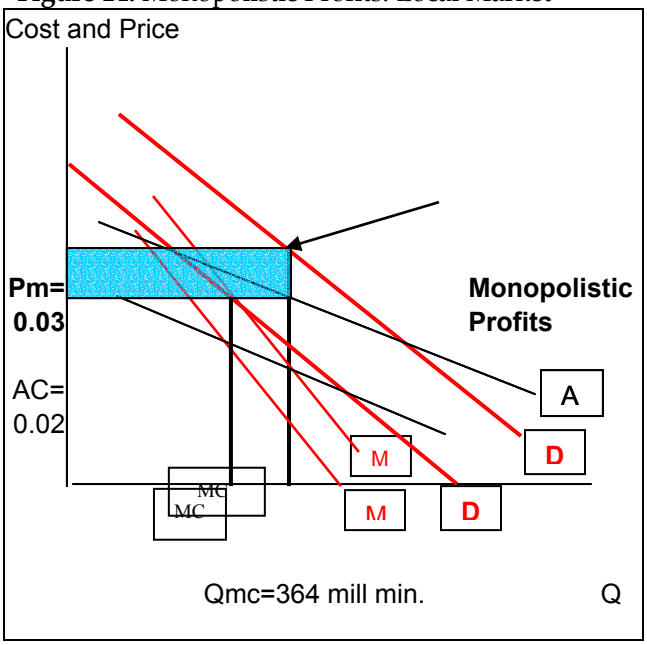


Figure 15: Entry Reduce Profits

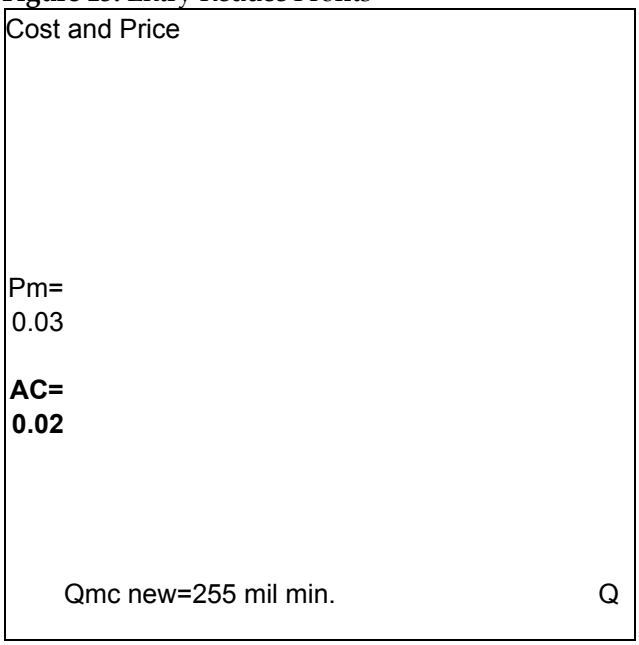


Figure 14: Firms produce where marginal revenue = marginal cost, and set their price at what the market will bear (on the demand curve). Profit = (P-AC)*Q; (.03 – .02)*364,000,000 = **DM 3,640,000 per day**. Notes:

[50] Georg Goetz "Der Deutsche Telekommunikationsmarkt zwei Jahre nach der Vollstaendigen Marktoeffnung: Eine Bestandsaufnahme aus Sicht der Verbraucher", Institut fuer Wirtschaftswissenschaften, Univsersitaet Wien, May 4, 2001.

AC=average cost, C=marginal cost, MR=marginal revenue, Pmc, Qmc--equilibrium price and quantity, under monopolistic competition.

Figure 15: New firms enter the market in response to economic profits. These new firms (not pictured) take demand away from DTAG, as shown below. The D curve shifts to the left and profits fall.

III.A.1.3. Organizational Integration

As shown in the background section, the organizational integration of Deutsche Telekom is all encompassing, reaching from fixed network services to mobile services, Internet services, data communications, etc. The huge organizational integration of the incumbent results in more R&D, greater availability of resources, ability to focus on a more profitable sector, and so on. But more importantly, it enables Deutsche Telekom to engage in cross-subsidization and strategic pricing techniques.

III.A.2. What is the Economic Importance of Interconnection Rates and the Leased Line Charges for the Unbundled Local Loop?

The interconnection and wholesale lased line tariffs are the basis for regulatory safeguards, which aim to ensure fair competition between the incumbent and new entrants. Network interconnectivity and the ability to reach the end-users is essential for new entrants to provide seamless telecommunication services to their customers since they do not have ubiquitous networks. At the same time, interconnectivity allows customers to choose among operators. If the retail tariffs are not fully rebalanced and interconnection and leased line tariffs are not cost-oriented, new market entrants cannot recover their marginal costs due to the `price-squeeze' situation. The European Commission in its "Fifth Report on the Implementation of the Telecommunications Regulatory Package" stated that price squeezes resulting from high interconnection tariffs and low end-user tariffs have the effect in a number of Member States of foreclosing entry in various market segments. This is particularly relevant to the local market. According to the OECD report of the Working Party on Telecommunication and Information Services Policies on "Interconnection and Local Competition"[51] the 'price squeeze' in the local market calls for careful regulatory arrangements on retail price and interconnection. In particular, the regulator is required to apply an appropriate accounting methodology to ensure cost-oriented interconnection and leased line charges.

III.A.3. What would be the Impact of More Competition in the Local Fixed Line Market for the Various Stakeholders and the German Economy?

German consumers, Deutsche Telekom, new market entrants and the overall economy are all likely to benefit from more competition. However, the increase of competition comes with certain costs for Deutsche Telekom. In the long run, though, the incumbent would benefit from more competition in its local market.

III.A.3.1. Impact on the Consumers

Consumers would clearly benefit from more competition in the local fixed network market. More competition would lead to:

[51] OECD, Working Party on Telecommunications and Information Services, "Interconnection and Local Competition", February 2001, at www.olis.oecd.org.

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1) Lower prices for telecommunications users: More competition in the local market would transfer monopolistic profits of Deutsche Telekom to the German consumers in the form of lower local call and Internet access charges. Since market liberalization, the only sector where prices have not undergone dramatic reductions is the local call market, where the incumbent is the de-facto monopolist.

2) More variety and faster innovations in service offerings: An improvement in service quality accompanying price reductions in several market segments. Competition would bring pricing innovations (i.e. long-distance carriers offering volume discounts, lower rates on frequently called numbers, and special promotions) that would reduce the actual prices paid by users well below published tariffs. Options would multiply.

3) More efficient, faster and friendlier customer service: The slow and inefficient service of Deutsche Telekom leads to extensive delays and frustration among consumers and businesses. If competitors could gain a larger market share, consumers and businesses could chose amongst a larger variety of providers, picking the one with the best customer service.

III.A.3.2. Impact on Deutsche Telekom

If more competition were introduced to the local market, Deutsche Telekom would clearly lose its status as a price setter, its monopolistic profits, and its ability to engage in cross-subsidization. However, the incumbent would also gain from increased competition in the local market.

1) Competition at home increases competitiveness of Deutsche Telekom in the global market. By introducing competition in the local market, Deutsche Telekom will have to adjust to the changes and will become better equipped to compete in both domestic and international markets.

2) Better customer service: Competition leads to better customer service. Delaying the introduction of more competition in the local access market will result in growing impatience of the German communication users with the inefficient and slow responsiveness of the firm.

3) Technological Development: Eventually, the lack of competition in the local market leads to growing isolation from potential dynamic market developments (such as, for instance, unmetered Internet access).

4) Expanded usage: Ultimately, the reduction in price leads to increased demand in the local call market, especially the Internet access charges. This expansion in usage would be likely outweigh losses from the decrease in price.

III.A.3.3. Impact on the German Economy

The German economy would clearly gain from the introduction of more competition in the local fixed network market. The advantages to the German economy are the following:

1) Introduction of competition attracts investment and leads to modernization of the telecommunications sector, which may result in higher economic returns: The modernization would include greater investment in fiber optic and other long distance networks.

2) Greater efficiency in telecommunications sector, in turn, increases growth and output in other sectors; in other words, increased overall GDP growth arising from positive externalities associated with telecommunications networks: the most important argument for introducing more competition in telecommunications is that it will bring economic growth to the entire economy, not just within the telecommunications sector. With lower prices and greater availability and variety of services, telecommunications will substitute for more expensive inputs, decrease transaction costs, and spur innovation in other industries. This will result in productivity gains, higher output and even more employment by firms. Service sector firms will particularly benefit, since they are among the most intensive users of telecommunications, but the gains will accrue in all economic sectors. The domestic economic risks of failing to make pro-competitive regulatory changes in the local network market can be large and can increase, as telecommunications becomes a more and more critical production component.

3) More competition in the German telecommunications market would result in lower Internet access charges and boost Internet usage: because the Internet is the main driving force of the new economy, higher Internet penetration would translate into higher economic growth rates.

4) The overall economic costs and significant market inefficiencies resulting from Deutsche Telekom's anticompetitive practices would be reduced.

III.A.3.4. Impact on the Competitors

The introduction of more competition into the operation of the fixed local access market would unveil the real prices of the leased line, enabling new market entrants to offer their services in all markets at competitive prices. If Deutsche Telekom would take a pro-competitive stance by providing more transparency, more timely and better services to the new market entrants, the competitors would be able to better plan their business strategies and coordinate their network usage, which would result in more efficient use of resources.

III.A.3.5. Impact on Employment

After markets are opened for competition some transitional unemployment usually occurs. Labor unions blame the regulatory framework for lost jobs at Deutsche Telekom. However, the workforce reduction program at Deutsche Telekom has been due to privatization and is not related to the increase of competition in the sector. Evidence that jobs at Deutsche Telekom will not be at risk through the promotion of more competition is the increase of employment at the firm in recent times. In addition, liberalization has clearly had a positive effect on employment as a whole. Job creation by the competitors at the end of 2000 in fact outweighs job losses at Deutsche Telekom as a result of the necessary reduction in employment.

III.A.4. What would be the Impact of Lower Internet Access Charges on Demand?

A reduction in the local call charges would be extremely significant for German residential and business users because the bulk of phone calls, especially Internet calls, are made is in the local market. Since dial-up Internet access services continue to be the prominent way of accessing the Internet for

residential users and small businesses, are the most significant factor in Internet usage.[52] As long as the former monopolist is in control of most end-users, Internet access charges will be determined by the tariffs offered by Deutsche Telekom. With current prices being on average as high as 2.7 Pfennig per minute, there is not much room for price reductions by the competitors.

In the following quantitative analysis of changes in demand for a lowering of price, I will use the British Internet dial-up costs as a comparison. In the UK, as in Germany, standard local telephone services are priced on a measured basis, whereas in the United States, consumers typically receive local telephone service on an unmeasured basis. In addition, the UK has a similar population density and one should therefore expect that the cost of infrastructure be comparable as well.

To estimate how much Internet usage would change for a given decrease in price, we consider the price elasticity of demand to be relatively inelastic at -0.8. If the German residential dial-up Internet access prices for an usage pattern of 20 hours per week at off peak hours would be successfully lowered to 100 as is the case in the UK, with an estimated price elasticity of demand being –0.8, we would expect to see an increase of Internet usage demand of 61 percent and 38 percent at off-peak and peak hours, respectively.

Residential (Off-peak)	***Residential (peak)***
Assume PED= -.8	*Assume PED= -.8*
PED = %ΔQd/ %ΔP;	*PED = %ΔQd/ %ΔP;*
-0.8 = %ΔQd/-76%;	*-0.8 = %ΔQd/-48%;*
%ΔQd = 61%	*%ΔQd = 38%*

If a usage pattern of 150 hours per week ('always on') is considered, we would even expect to see a rise in demand of Internet usage by 250 percent for residential users and an increase in demand of 148 percent for small and medium-size business users.

Residential (Peak and off-peak)	***Business***
PED = %ΔQd/%ΔP;	*PED = %ΔQd/%ΔP;*
-0.8 = %ΔQd/-313%;	*-0.8 = %ΔQd/-185%;*
%ΔQd = 250%	*%ΔQd = 148%*

An increase of Internet usage ranging from 38 percent to 61 percent for a usage pattern of 20 hours/month and 250 percent (or 148 percent for business users) for unmetered usage could bring about the information society that Germany urgently needs. The impact of increased Internet usage and e-commerce on the economy extends far beyond the dollar value of e-commerce activity. Businesses use e-commerce to develop competitive advantages by providing more useful information, expanding choice and markets, developing new services, streamlining purchasing processes, and lowering costs. The Internet imposes price discipline and gives customers access to price and product information from many sources. Lowering the Internet access charges should therefore be high on the political agenda.

[52] For Internet users two charges apply: (1) public switched telephony network (PSTN) fixed (=monthly line rental) and usage (price of local telephone calls) charges, and (2) charges of an Internet Service Provider.

III.B. COMMERCIAL ANALYSIS OF THE COMPETITIVE SITUATION

The commercial analysis provides further investigation into the allegations of the new market entrants regarding Deutsche Telekom's practices. Concerns are identified regarding the high leased-line fees for the local loop, the engagement in price-squeezing techniques by Deutsche Telekom, the delays for the delivery of interconnection and collocation, and Deutsche Telekom's practice of inhibiting the creation of truly independent alternative network operators.

III.B.1. Are the Fees Deutsche Telekom charges for the Access to the Local Loop too high?

Yes, the leased-line charges are still too high to allow for the introduction of competition in the local access market. In fact, high charges for the last mile are almost single-handedly prohibiting inexpensive and unmetered Internet access charges. The line rental charge must be cost-oriented to avoid cross-subsidies between different voice telephony services, thereby allowing new entrants to compete in all market segments.

Although the regulator, in its decision on the *Teilnehmeranschlussleitungen* on March 30, 2001, decided to lower the charges. This decision is not likely to have a large impact. According to the ruling starting on April 1, 2001, the costs for the leased line will be lowered by DM 1 to DM 24.40, a reduction of five percent.[53] Although this constitutes a step in the right direction, it falls short of the 25 percent needed to qualify as an efficient service provision cost as computed by Dialog Consulting on behalf of Breko ("*Bundesverband der regionalen und lokalen Telekommunikationsgesellschaften*").[54] The independent consultancy applied the cost model developed by the economic institute for communication services ("*Wissenschaftliches Institut fuer Telekommunikationsdienste*" WIK), which is used by the regulatory authority to determine the lease for the Teilnemeranschlussleitungen. The study concluded that according to the cost model the leased-line charges should be maximally as high as DEM 18 to qualify as efficient service provision costs. These findings are supported and regarded as adequate by several other new market entrants.

The new price is also slightly lower than the price Deutsche Telekom charges its own end-users, although it is doubtful whether this mitigates the price squeeze on the competitors. Deutsche Telekom's customers can obtain the analog line for DM 24.81 per month. Deutsche Telekom accepts that the line rental cost for its customers is below cost, but claims that it is not in a position to increase it.

III.B.2. Does Deutsche Telekom engage in price squeezing techniques and cross-subsidization?

A closer look at the comprehensive rate packages offered by Deutsche Telekom clearly shows that these offers cannot be matched by the competitors. The bundled offers undermine price control by the regulator and blur the line between sectors where the regulatory authority requires prior price approval and sectors where no price approval is required.

[53] Following the decision of the regulatory authority to lower the prices Deutsche Telkom and its competitors announced that they would initiate legal action against the decision of the regulatory authority. The incumbent argues that the tariff is to low, the competitors are considering a class action on the grounds that the tariff continues to impede competition in the local market (Financial Times Deutschland, April 27, 2001).

[54] Kosten von Teilnehmeranschlussleitungen in Deutschland – Analyse unter Verwendug der WIK-Kostenmodells 2.0. Dialog Consult on behalf of Breko, Bonn February 14, 2001.

The following are concrete examples of Deutsche Telekom's strategic pricing:

- Deutsche Telekom's wholly owned subsidiary T-online rolled out its own flat rate fee for unlimited access, charging only DM 79 (US$ 36.34) a month. The company refused to offer the same inexpensive flat rate charges to its competitors. Because of Deutsche Telekom's opposition, unmetered Internet access will remain outside the reach of most Germans for the foreseeable future, which has been criticized by the public.[55]

- Deutsche Telekom provides a rebate to a customer who is already an ISDN customer and subscribes to the flat rate of Deutsche Telekom's Internet provider "T-Online" (for US$ 41 per month). The ISDN connection "AktivPlus" currently costs DM 54.88 (US$ 27) per month (including a 50% rebate for voice telephony). In total, Internet via ISDN amounts to DM 133.88 (US$ 68). If the same customer subscribes to Deutsche Telekom's new T-DSL service as of September 1, 2000, the customer will only be charged DM 118.77 (US$ 55)[56] to use the Internet on a flatrate basis, including the higher speed of the DSL line.

- Deutsche Telekom introduced a flat rate XXL (first flat rate offer) for a test period of 7 months beginning on June 1, 2000, for Sundays and holidays only. The firms' ISDN customers may choose to accept an increase in their monthly fee of DM 14.89 ($8) in order to have unlimited surfing of the Internet via T-Online, and to make unlimited telephone calls within Germany. Further, customers may not be preselected to a competitor to use this service.

These rate packages materially increase the price squeeze between interconnection charges (calculated on a per-minute-basis) and its end-user charges and cannot be matched by the competitors. Comparable wholesale flat-rate services (such as Internet flatrates) are not offered to competitors by Deutsche Telekom. The rate packages blur the line between Deutsche Telekom's fees for voice telephony, where the German regulator's prior price approval is required, and Web communication, where it is not. The bundled offers therefore undermine any efficient price control by the regulator and allow Deutsche Telekom to cross- subsidize between long distance and local calls, between the monthly line rental charge and the local per minute charge for voice telephony, and between Internet offers and voice telephony.

III.B.3. Is there evidence for alleged backlogs in collocation space?

Last year, the VATM conducted a survey among its members covering approximately 1,500 orders for collocation space under the Local Loop contract, placed by 14 different carriers. The survey documented serious delays in Deutsche Telekom's offers for collocation spaces.

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[55] Deutsche Telekom has been proceeding against a ruling in November 2000 by the Regulatory Authority that the company provide wholesale flat-rate access to all Internet service providers. On March 16, 2001, the administrative appeals court of North Rhine-Westphalia excused Telekom from offering a wholesale flat-rate fee to its rivals, such as America Online, until all the legal issues in the ruling have been cleared up in court. Telekom ignited the feud last year when its Internet subsidiary, T-Online International AG, rolled out its own flat-rate fee for unlimited access of 79 Deutsche marks ($36.34) a month, which instantly became a hit with consumers. But competitors complained that Telekom effectively subsidized T-Online because virtually all rival Internet access providers rely on Telekom's comprehensive network of local connections. Independent competitors pay by the minute for access to the Telekom network, making it uneconomical for them to match T-Online's flat-rate fee. T-Online canceled its flat-rate service in March, and replaced it with a new pricing structure. Because of this, the court ruled its rivals no longer had a disadvantage (International Herald Tribune "Telekom Wins Appeal Over Unmetered Net Access", March 17, 2001 at http://userpage.fu-berlin.de/~dittbern/).

[56] DM 54.88 for the ISDN connection AktivPlus + DM 14.89 (T-DSL) + DM 49 (Flatrate T-Online DSL) = DM 118.77 (US$ 55) including the high speed and higher bandwidth of a DSL line.

The Regulatory Authority, in its decision on June 7, 2000, set time limits for the provisional collocation. According to the regulator, Deutsche Telekom must submit an offer for a collocation room within 20 days; if the order is for a new collocation room, delivery must take place within 16 weeks; if it's an enlargement of an existing collocation room, delivery must take place within 7 weeks. The incumbent exceeded these provisioning intervals, and in some cases, when the Deutsche Telekom's central office was located in attractive commercial areas, did not provide the requested collocation space at all. . The results of the study are summarized below (Table 2):

Table 2: VATM study on collocation space orders.

1) PREPARING AN OFFER
(a) In 86.3 % of all cases, Deutsche Telekom exceeds the stipulated interval for Preparing an Offer for collocation space (the interval is supposed to be 20 days according to the agreement between the Competitors and Deutsche Telekom, as approved by the German regulator)
(b) In 50.69 % of the cases mentioned under (a), Deutsche Telekom exceeds the interval for Preparing an Offer for collocation space by 250% (50 days or more).
2) PROVISIONING OF COLLOCATION SPACE
(a) In 77.02% of all cases, Deutsche Telekom does not comply with the provisioning intervals, which is 16 weeks from the receipt of the final order by DEUTSCHE TELEKOM.
(b) In 32.77 % of all cases, Deutsche Telekom exceeded the stipulated interval for providing collocation space by 12 weeks or more (more than 75% of the stipulated time). This number is expected to increase because Deutsche Telekom has not even processed many pending orders.
(c) In 171 cases, Deutsche Telekom did not provide the requested collocation space at all, particularly when Deutsche Telekom's Central Office was located in an attractive commercial area. This is happening on an increasing basis.
(d) The situation of placing offers and the provision of collocation space is particularly burdensome in the metropolitan bottleneck areas Essen, Duesseldorf, Stuttgart, Munich, Hamburg, Cologne, Karlsruhe and Freiburg. In addition, competitors have observed that serious provisioning delays with Deutsche Telekom are increasing in smaller cities, such as Hagen, Gelsenkirchen and Krefeld.

Source: VATM, available at www.vatm.de.

VATM's conclusion is that "even after the German regulator decision rendered on June 7, 2000, Deutsche Telekom seriously obstructs competition on the local markets as the survey clearly demonstrates, not only in individual cases, but systematically by artificially created bottlenecks. In particular, new market entrants in the local markets suffer from Deutsche Telekom's obstruction policy."

Deutsche Telekom argued that personnel bottlenecks and existing capacity constraints were to blame for the delays in processing and provisioning orders. And in fact the number of requests for interconnection increased exponentially. At the end of 1999 there were over 1,900 requests for interconnection agreements. By 2000, this number had reached 12,000. However, even if the problems with the timely provisioning of collocation space are partly or even entirely due to capacity constraints and personal bottlenecks, the problem must be mitigated without delay. It is hard to believe that a company that claims to possess one of the most modern networks in the world and engages in thriving markets such as system solutions is unable to deal with personal bottlenecks and capacity constraints.

One reason Deutsche Telekom is reluctant to change the situation is that capacity restraints limit its competitors traffic. The competitors contend that the regulatory authority failed to include in its June

2000 decision appropriate penalties to ensure that the incumbent obey the time limits. However, due to the existing capacity constraints, the regulator decided that a penalty clause would not solve the problem. The body also posited that given the opportunity for new entrants to claim damages in the civil court, there is no need to set penalties. Although these arguments are valid, they clearly show bias in favor of Deutsche Telekom by allowing the incumbent to continue to use its bottlenecks to thwart off competitors.

Suggestions by the competitors to deal with the problem, such as dividing collocation space to better utilize the scarce facilities, were rejected by Deutsche Telekom with reference to the lack of any legally binding obligation to do so. The regulator, in turn, by arguing that the competitors had originally insisted in getting separated collocation rooms, showed no flexibility in changing the current legal situation in favor of more efficient use of the collocation spaces.

Deutsche Telekom also refused to provide network-planning information to competitors. Such information could be used to prevent over-subscriptions and enable competitors to deal with capacity constraints. Instead of hampering the competitors' ability to offer services, Deutsche Telekom should cooperate with them to increase market efficiency. The combination of excessive provisioning times, disregard of contractual lead times and poor allocation of resources thwarts the deployment of competitors' networks. Moreover, even as the shortage of space depends on, and is largely within the control of the firm's real estate subsidiary, Deutsche Telekom wants to impose increasingly stringent forecasting requirements for space on competitors.

III.B.4. Is Deutsche Telekom Preventing the Creation of Alternative Cable Operators?

The conditions and secrecy attached to the bid process of Deutsche Telekom raised concerns that Deutsche Telekom was in fact trying to hinder the development of alternative network operators in the cable market. Even after Deutsche Telekom sold its cable holdings that summer, the substantial minority stake in all new companies ensured significant control over their managerial operations and business decisions. The fact that the company only sold the coaxial cable together with the receiving facilities and amplifiers means Deutsche Telekom can continue to influence the price by leasing the network hubs and trunks to the new companies.

The impact of Deutsche Telekom retaining the right to decide on the capacity of the cable network operators to offer telecommunications services is not yet clear.[57] Also uncertain are the terms of the deal relating to the 'd-box' — the set-top box used to receive digital television. In February 2001 Deutsche Telekom took a controlling stake in Beta Research, the technology company that develops software for the d-box. The remaining 49 per cent of Beta Technology remains in the hands of the Kirsch Group, Germany's largest independent commercial TV group, and a supplier of digital TV services. With a share in both the cable networks and a partisan technology company, there are fears that Deutsche Telekom could force buyers of its networks down a technology and programming road they may not wish to travel. If there is a problem, it likely will become more acute when buyers begin upgrading networks to carry interactive services, telephony and Internet access. It is unclear whether the investors will be forced to use the next-generation 'd-box', which will have internet access, or whether they will have a free hand in choosing new set-top box technology and services.

[57] Sixth Report on the Implementation of the Telecommunications Regulatory Package, European Commission, December 2000. Available at www.europa.eu.int.

III.C. INSTITUTIONAL ANALYSIS

The institutional analysis examines the Regulatory Authority's actual authority and independence, and its understanding of the economic impact of Deutsche Telekom's practices. It questions the neutrality of the regulator and the high licensing fees charges.

III.C.1. Does the Regulator have enough authority to restrict Deutsche Telekom in abusing its market dominant power?

The answer is No. The regulator clearly lacks authority to counter the subtle obstructionism practiced by the incumbent. Even as problematic issues have perpetuated, the regulator has relied exclusively on reactive, quasi-judicial processes for each individual dispute. To date, no coherent, overall regulatory plan or rule making for the market is evident. For that reason the German regulator continues to rely on ad hoc decisions under time pressure. The majority of decisions do not address future problem solving approaches. The incumbent agrees with the new market entrants that the decision-making process of the regulatory authority should be more policy-oriented and rely less on detailed case-by-case approach.

The regulator's lack of authority has been evident in numerous cases where Deutsche Telekom did not implement the regulator's decisions. For instance, the regulatory authority determined that significant delays in transferring local customer service from Deutsche Telekom to the competitors constituted a clear abuse of market power. Yet, and in face of still-increasing delays in processing customer transfers, the regulator failed to enforce its order. With respect to retail price tariffs, the German regulator has failed to enforce the legal requirement that Deutsche Telekom present evidence of cost-based pricing. In addition to these decisions, the regulatory body has failed to oversee compliance with provisions laid out by the Telecommunications Act, such as the separation of accounts, which has not been fulfilled by the incumbent to date.

The engagement of the incumbent in below-costs pricing behavior is encouraged by the German regulator's practice of determining price caps for the firm's access charges. Currently, the German regulator only differentiates between residential and non-residential services, and curiously places international, national long distance, local and access services into the same basket. Consequently, Deutsche Telekom is in position to comply with the price cap by offering low rates for its long-distance and international services, where competition is emerging, and by keeping prices for its local access services (where competition is embryonic) artificially high.

III.C.2. Does the Regulator lack an understanding of the economic significance of certain practices of the incumbent?

The answer is Yes. The regulator seems to lack understanding of the economic significance of seemingly minor irritations. Deutsche Telekom's refuses to offer fast circuit restoration, and provides only to itself and its subsidiaries the following services: the ability to switch business customers outside of business hours, automatic traffic rerouting, overflow routing in emergencies, etc. Due to the regulator's limited knowledge and experience, predatory pricing structures of Deutsche Telekom go unnoticed (for instance, T-Online's flat rate for Internet access).

Deutsche Telekom's increasingly complex tariff structures and bundling of services, (e.g. Aktiv Plus, which offers a combined discount for local and long-distance calls) makes it more difficult for the regulator to evaluate prices. The regulator often lacks the right tools at hand to make decisions: Deutsche Telekom's digital subscriber line tariff ("T-DSL") was classified as "not requiring approval" despite no

factual basis for such classification. The multitude and increasing complexity of tariff filings makes it impossible to apply decision-making principles established earlier. The regulator also seems to lack skilled human resources, especially in the ruling chambers. Due to understaffing the ruling chambers are constantly overloaded. The increasing complexity of the market and the growing number of cases to be handled exacerbate the poor quality of decisions.

III.C.3. Is there a bias in the regulator's decision making towards Deutsche Telekom?

The answer is Yes. The regulatory body has a much greater understanding for the problems and concerns of the incumbent than for the new market entrants. Because the German regulator generally refuses to allow competitive carriers to join in the tariff review proceedings, it is less exposed to their reasoning and thus favors the incumbent. Many of the personnel in the regulatory authority were recruited directly from government officials of the former Federal Ministry of Posts and Telecommunications, whose primary mission was to supervise and protect the activities of former state monopolist.

In addition, the regulatory authority is under considerable political pressure to relax the regulatory framework. The Government's protectionism is routed in the governmental and public shareholding. The falling price of Deutsche Telekom's and its subsidiaries stock certainly does not encourage the German regulator to take bold steps to increase competition.

III.C.4. Are the licensing fees charged by the regulatory authority too high?

The answer is Yes. Germany's licensing fees are out of proportion, exceeding the fees charged by any other European country (see table three).

Table 3: Survey of the European Commission on administrative fees for (numbering/licensing) for the first year of operation (nationwide provision).[58]

Member State	First Year Fees Voice in Euro (1)	First Year Fees Infrastructure in Euro (2)
Belgium	130,000	21,000
Denmark	295,000	0
Germany	**2,048,000**	**5,419,000**
Spain	143,000	17,000
France	366,000	800,000
Ireland	51,000	6,000
Italy	124,000	165,000
Luxembourg	290,000	20,000
Netherlands	58,000	2,000
Austria	0	5,000
Portugal	n.a.	20,000
Finland	342,000	0
Sweden	600	600
U.K.	18,000	Max. 64,000

(1) Chart 38 of EU 5th Report (Fifth Report on the Implementation of the Telecommunications Regulatory Package, November 1999), Annex 4.3.3.1: Total fees for the first year of operation for nationwide provision of voice telephony services (numbering and licensing fees), not including the operation of the network, for 1,000,000 telephone numbers and 1 International Signaling Point Code (ISPC), and 4 National Signaling Point Codes (NSPC).

[58] Chart taken from the Statement by Andrew Lipman, Oversight Hearing of the Subcommittee on Telecommunications of American Telecommunications Companies, September 7, 2000, at www.house.gov.

(2) Chart 41 of EU 5th Report, Annex 4.3.3.2.

A number of factors could explain the higher-than-European average licensing fees in Germany; however, none of these points justify the disproportional costs. Germany is the largest telecommunications market; accordingly a much larger number of operators and service providers are interested in entering the market, adding to the administrative workload of the regulator. The operational budget of the German operator is several times higher than the budget of other European operators (153.4 million Euro in 2000, as compared to 24.0 million Euro in the UK). Subsequently, the German regulator also employs the largest number of people (2446 in 2000, as compared to 208 in the UK).

Nonetheless, these factors do not justify the high fees. In fact, the high charges create the impression that the German government tries to capitalize on new market entrants at the expense of more market competition. Two U.S. competitive telecommunications associations filed formal complaints concerning the German licensing fees as part of the USTR's annual review of telecommunications trade agreements under Section 1377 of the Omnibus Trade and Competitiveness Act. In one industry report on Foreign Trade Barriers submitted to USTR, Germany's fee structure was listed as a reason to place Germany on the list of countries that lack full or satisfactory implementation of commitments under the WTO Basic Telecommunications Agreement

III.D. LEGAL ANALYSIS

The current legal framework for regulation of the telecommunications sector has been developed both at the EU level and the EU Members State level. The European Commission played an integral role in German market liberalizations. With the Access Notice in 1998, the European Commission developed the framework for access and interconnection in the EU.[59] Sector regulation and antitrust became, in a complimentary manner, the two pillars on which the regulatory framing was based.[60] In addition to the European legislation, the WTO Basic Telecommunications Agreement (BTA), especially the Reference Paper, played a major role in the development of sector regulation.

III.D.1. Can Deutsche Telekom's below-cost pricing be legally challenged?

Yes, the German Act against Restraints of Competition *("Gesetz gegen Wettbewerbsbeschraenkungen")*[61] contains the general antitrust provisions in German law. The act prohibits the abusive exploitation of a dominant position by one or several undertakings. According to the act, an undertaking is dominant if it has no competitors or is not exposed to any substantial competition, or if it has a paramount market position in relation to its competitors.

According to the Act against Restraints of Competition, it is forbidden for an undertaking to exploit its superior market power against small and medium-sized competitors. The notice of the Bundeskartellamt on sales below cost price amending the Act Against Restraints on Competition lies out in its Article one, that an unfair hindrance exists if an undertaking offers goods or services not merely occasionally below their cost price, unless there is an objective justification for this.

In its Article four the notice on sales below cost price reads

"Sales below cost price that take place not merely occasionally are in principle an unfair hindrance to competition unless they are objectively justifiable in individual cases".

It also establishes that

"There can be no objective justification for sales below cost price if the intention is to squeeze other competitors out of the market, or to damage competitive market structures in the long term."

The practices of the incumbent are therefore breaching the Act Against Restraints of Competition and the Notice of the Bundeskartellamt on Sales Below Cost Price. Deutsche Telekom could therefore be challenged on non-compliance of the above articles under the Act Against Restraints of Competition.

[59] Notice on the Application of competition rules to Access Agreements in the Telecommunications Sector, August 1998. Available at www.europa.eu.int/eur-lex/en/index.html.

[60] Herbert Ungerer, Access Issues Under EU Regulation and Antitrust Law: The Case of Telecommunications and Internet Markets, Incidental Paper, July 2000. Available at www.pirp.harvard.edu.

[61] The legal text of the Act Against Restraints of Competition is available on the WebPages of the Bundeskartellamt at http://www.bundeskartellamt.de/competition_act.html.

III.D.2. Can Deutsche Telekom be challenged for segregating its accounting system?

Yes, there are German and European laws requiring the separation of accounts by the market dominant firm. Article 14.2 of the German Telecommunications Act requires that:

> *"(c)ompanies having a dominant position according to Article 19 of the Law against Restraints of Competition in a telecommunications market shall guarantee the transparency of financial relations between and among telecommunications services in the licensed sector and between and among such services and telecommunications services in the non-licensed sector by establishing a segregated accounting system. In this regard, the regulatory authority may prescribe the structure of internal accounting for particular telecommunications services subject to license".*[62]

Because Deutsche Telekom has not complied with this article, the German regulator cannot detect Deutsche Telekom's cross-subsidization or strategy pricing techniques.

Articles 71 and 72 establish the functions and powers of the regulatory authority, noting that:

> *"(t)he regulatory authority shall oversee compliance with the provisions of this Act and with conditions, administrative orders and orders imposed in accordance with this Act or with an ordinance having the force of law issued by virtue of this Act, and in particular compliance with the conditions imposed on a licensee".*

The German regulator has not complied with this article by imposing orders on Deutsche Telekom to establish segregated accounting systems and increased transparency.

This provision is also laid out by the Recommendation on Accounting Separation and Cost Accounting (by the Commission Recommendation 98/322/EC of 8 April 1998) on interconnection in a liberalized telecommunications market.

III.D.3. Can Deutsche Telekom be challenged on the interconnection conditions it offers to its competitors?

Yes, Deutsche Telekom can be challenged for the interconnection conditions it offers to its competitors. Under EU legislation, operators with significant market power have to meet all reasonable requests for interconnection based on principles of cost orientating, transparency, and non-discrimination. Although this language is very general there is no doubt of the deficiencies regarding transparency and non-discrimination of the incumbent's interconnection regime.

Article 33 of the German Telecommunications Act mandates that providers with a market-dominant position shall enable competitors

> *"to access, on a non-discriminatory basis, the services he uses internally and those he offers to the market, to the extent that they are essential, upon the same conditions he applies to himself for the use of such services to provide other telecommunications services, unless the establishment of less favorable conditions, particularly the imposition of restrictions, is objectively justified".*[63]

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[62] German Telecommunications Act at www.regtp.de.

[63] German Telecommunications Act. Available at www.regtp.de

Whether Deutsche Telekom offers the same quality service to itself as it offers its competitors remains questionable. The Telecommunications Act further outlines that access shall be granted on the basis of an interconnection agreement which will, inter alias, govern the compensation to be paid. Such agreement must be based on objective criteria and must be non-discriminatory and transparent. The details for the interconnection are not provided for in the act itself. Instead the act authorizes governmental regulations to provide details of the interconnection and requires that the regulator approve the interconnected changes.[64]

Deutsche Telekom could be challenged for dictating unilaterally the rules and conditions for interconnections. Under the EU Reference Interconnection Offer, it is the regulatory authority's task to develop well balanced non-discriminatory interconnection conditions.

Deutsche Telekom's practices could be used to challenge the German Government for lack of enforcement under the WTO Reference Paper. In the Reference Paper, Germany committed to provide interconnection with Deutsche Telekom's network on an unbundled, non-discriminatory, cost-oriented and transparent basis, at any technically feasible point in the network

III.D.4. Are there legal provisions to challenge the rate for the leased line?

Yes, the rate for the leased line could be challenged under the German telecommunications law. Article 24 mandates that rates for the Teilnemeranschlussleitungen shall be based on efficient service provision costs. Rates shall:

1. *Contain no surcharges which prevail solely as a result of the provider's dominant position according to §19 of the Law against Restraints of Competition in the relevant telecommunications market;*

2. *Contain no discounts, which prejudice the competitive opportunities of other companies in a telecommunications market; or*

3. *Not create any advantages for individual users in relation to other users of identical or similar telecommunications services in the relevant telecommunications market, unless there is evidence of an objectively justifiable reason therefore.*

It is doubtful, however, if the current rate of 24,50 is an efficient service provision cost. It is also questionable whether the rates contain no surcharges, which prevail as a result of Deutsche Telekom's market-dominant position. The study by Dialog Consulting, an independent consultancy firm mentioned in the commercial analysis section, concluded that the charges had to be lowered to about DM 18 to comply with Article 24 of the Telecommunications Act.

III.D.5. Are there Legal Provisions Ensuring the Independence of the Regulatory Body?

Under the German Telecommunications Act, European law, and the WTO reference paper, the German regulator is supposed to be an independent body. According to Article 5 of the WTO Basic Telecommunications Agreement Reference Paper,

[64] Axel Spies and Jan F. Wrede, The New German Telecommunications Act, November 25, 1997 http://www.mttlr.org/volfour/spies.html.

"The regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants".

Whether this arms-length relationship applies to the German regulator is doubtful. Many of the personnel are government officials of the former Federal Ministry of Posts and Telecommunications, whose primary mission was to supervise and protect the activities of the former Federal Post and Telecommunications Monopolies. In addition, the former head of the regulatory authority allegedly left due to an increase in political pressure from the government. The new president, Mr. Knuth, has very close ties to the Federal Ministry of Economics. New appointments in the regulatory authority are generally seen as influenced by political affiliation.

The fact that the regulatory is subordinate to the Ministry of Economics and Technology, a governmental body, violates the required independency of the regulator. Director General VII of the Ministry of Economics oversees policies on telecommunications, such as the drafting of guidelines for the Governments post policy that "serve as parameters for the Regulatory Authority for Telecommunications and Posts".[65] However, Director General VII of the Ministry also administers the shareholding of the Government, and coordinates the activities and monitors Deutsche Telekom's strategy. That this situation leads to a conflict of interest is apparent in the Ministries position paper, which intends to steer the telecommunications market into another direction, while overruling the well-established rules and competencies of the German regulator, the German Federal Cartel Office, and the Monopolies Commission, all of which are under the supervision of the German courts. The announcement of the Ministry that it intends to roll back several competitive safeguards previously implemented by the German regulator, such as the current price control mechanism, overrule decisions taken by the regulatory authority, threatening its impartiality.

More concretely, the Monopoly Commission in its Special Expert Report, under section 74, found that considerations to exempt partly or fully the former monopolist Deutsche Telekom AG from regulation are premature and that the ex-ante regulation of charges, both on the upstream and the final customer markets of fixed network telephony, continues to be necessary. In its Position Paper commenting on the reports of the Monopoly Commission, the Federal Ministry of Economics and Technology, under ad numbers 74 to 76, and unlike the Monopoly Commission and the RegTP,

"Believes that the ex-ante regulation of final customer prices, at least with regard to business customers, can be abolished in the medium term and be replaced by retrospective abuse control carried out by RegTP."

The price control mechanisms are mandated by the Telecommunications Act and apply to sectors in which there is a market-dominant provider. Market dominance under the Telecommunications Act is determined by reference to the German Act against Restraints on Competition. The decision whether the ex-ante price control should apply or not should therefore be based on an analysis of the competitive situation and not on the beliefs of the Ministry.

III.D.6. Are their any legal provisions requiring the complete divestment of Deutsche Telekom from its legacy cable network?

Not really. On June 23, 1999 the European Commission adopted a directive amending Directive 90/388/EEC (the "Cable Directive"), which deals with the regulation of broadband cable networks. The amendment to the Cable Directive requires that the telecommunications activities and broadband cable

[65] See www.bmwi.de.

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. Deutsche Telekom subsequently divided its nationwide cable holdings into nine regional entities and sought investors to assume majority control over those companies. These measures seem sufficient under the cable directive. There are no legal means to force Deutsche Telekom to divest completely from the new companies, without keeping a minority stake. Under German corporate law, the 25 percent ownership gives Deutsche Telekom the right of veto over any major plans the network companies may have. Additionally, Deutsche Telekom is not required to completely divest from its remaining network ownership.

Deutsche Telekom's ownership of the cable network has often been identified as one of the central shortcomings of the market liberalization. In other countries, a provision generally restricts the cross-ownership of potentially competitive networks, such as the cable TV and the fixed line network traditionally used for voice telephony. In the US, section 302 of the Telecommunications Act of 1996 asserts that a dominant local network operator or an enterprise that is connected to that operator is not allowed to have more than ten percent capital stake in a local cable TV-network company. In the UK and in Belgium, the established supplier is forbidden to operate Cable TV-networks. The government's intent in separating the incumbent from the cable network was to create a physically alternative customer access to end-users. In Germany, the federal government was not able to create such a separation. Under the Telecommunications Act, it is merely established that a market dominant supplier must guarantee a transparent rendering of account as described above.

III.D.7. Are there any legal requirements regarding the amount of the Licensing Fees?

Article 16 of the German Telecommunications Act establishes that the license fee is determined by the Federal Ministry of Posts and Telecommunications (now the regulatory authority) in agreement with the Federal Ministry of the Interior, the Federal Ministry of Finance, the Federal Ministry of Justice and the Federal Ministry of Economics. The setting of license fees does not require the consent of the German Bundesrat. Two U.S. competitive telecommunications associations filed formal complaints concerning these licensing fees as part of the USTR's annual review of telecommunications trade agreements under Section 1377 of the Omnibus Trade and Competitiveness Act. The German courts litigated the issue but a ruling overturned a preliminary injunction against the charges. However, due to a new European regulation that the national regulatory authorities can only charge the administrative for licenses, Germany is in the process of preparing legislation to lower the fees.

III.E. POLICY ISSUE ANALYSIS

Greater competition and stricter regulatory control of Deutsche Telekom is a politically sensitive issue. Legitimate concerns must be addressed in order to convince the concerned parties of the benefits of actively supporting a more competitive marketplace. The following analysis of the substantive policy issues address a number of these issues.

III.E.1. Is there not sufficient competition in the telecommunications market already?

No, definitely not. There continues to be a lack of competition in a number of market sectors. However, defenders of the current competitive situation argue that the degree of competition in the German market is comparatively high, especially since the German market has only been fully opened for three years. This is not a valid argument. It is absolutely crucial that the competitors gain a larger market share in Germany for the following reasons:

1) Communications technology is evolving at an incredible speed. Lack of competition in certain communications market segments was not as crucial five years ago as it is today. Countries cannot afford to maintain monopolistic markets in this sector since there is a great risk of being left behind. In terms of Internet penetration, Germans already lag far behind the United States and the Nordic countries. To take full advantage of today's fast evolving markets and technologies, countries must maintain functioning competition to drive down prices and offer a great variety of technologies and services in all communications sectors.

2) More competition in all market segments is key for the success in the numerous governmental initiatives promoting Internet usage and e-commerce.

3) Germany should drive the development of the single market forward by being a leader in the European telecommunications market.

4) The lack of competition and anti-competitive practices of the incumbent lead to strains in the trade relations with other counties. Germany is already on the US watch list and several US firms have asked the Unites States Trade Representative to challenge the practices of the German incumbent before the WTO dispute settlement body.

III.E.2. Should the Government Engage in the Protection of Jobs at Deutsche Telekom?

No. The protection of jobs at Deutsche Telekom is no longer necessary. The issue is rather whether the government should bow to pressure from labor unions, its traditional political base. Labor has repeatedly advocated a relaxation of the regulatory regime and blamed the job losses at Deutsche Telekom on the regulatory regime and market liberalization. The ruling coalition is therefore reluctant to take bold steps to promote more competition against Deutsche Telekom. However, labor is not a valid argument to protect Deutsche Telekom for the following reasons:

1) Under the workforce reduction program 65,000 workers had to be laid off. This was not related to entry of competitors, but merely due to the necessary restructuring after the privatization of the firm. The entry of competitors into the market did not have a negative impact on Deutsche Telekom. In fact, there has been an increase in employment at the firm (refer to figure 12).

2) The new market entrants have significantly contributed to job creation in the overall telecommunications market. Jobs with the new market entrants have increased by approximately 150,000 jobs since the market liberalization.[66]

3) Instead of bowing to pressure from labor unions, the government should educate the unions about job creation by the competitors in the telecommunications sector.

4) The current increase of defaults and bankruptcies of small and medium sized competitors show that instead of the incumbent, jobs for new market entrants are more at risk. According to a study by the strategic consultancy Roland Berger, two-thirds of the 400 licensed new market entrants will either be acquired by other competitors or go bankrupt in the near future. [67]

III.E.3. Should the Government engage in the Protection of Deutsche Telekom to Provide Universal Services?

No. Functioning competition in the telecommunications market should be sufficient to provide universal service at uniform prices to all German consumers. The fear that liberalization and cost-based pricing would not maintain universal services and uniform tariffs throughout the country has been used by the German government in support of Deutsche Telekom. The argument is that competition would permit companies to skim off profitable business and urban customers while leaving the incumbent insufficient resources to provide equally good service to unprofitable sectors. This is a valid concern and must be addressed accordingly. However, there are a number of reason why protection of Deutsche Telekom is not the right way to deal with this important issue:

1) Functioning competition can in fact provide universal services. Market competition has proven to result in lower prices, thus reducing the costs for all users.

2) In fact, the only market sector that completely lacks competition, the local market, has the highest prices, putting small users at a disadvantage. The current framework has therefore failed to provide universal service and uniform prices. With the entry of competition in the local market, prices will surely decrease in this market segment.

3) Economically, there are more sufficient tools to guarantee universal services than restricting competition. If a truly competitive market does not succeed in providing universal service and uniform prices, the government could directly subsidize services to less profitable market sectors. The issue, however, should be whether there are not other ways of assuring good service to less profitable sectors than by stifling competition. Some economists argue that direct subsidies would be a more efficient way of achieving uniform service.

66 Martin Distelkamp, Dieter Elixmann, Christian Lutz, Bernd Meyer, Ulrike Schimmel: "Beschäftigungswirkungen der Liberalisierung im Telekommunikationssektor in der Bundesrepublik Deutschland, März 2000", WIK newsletter #202, March 2000. www.wik.org.

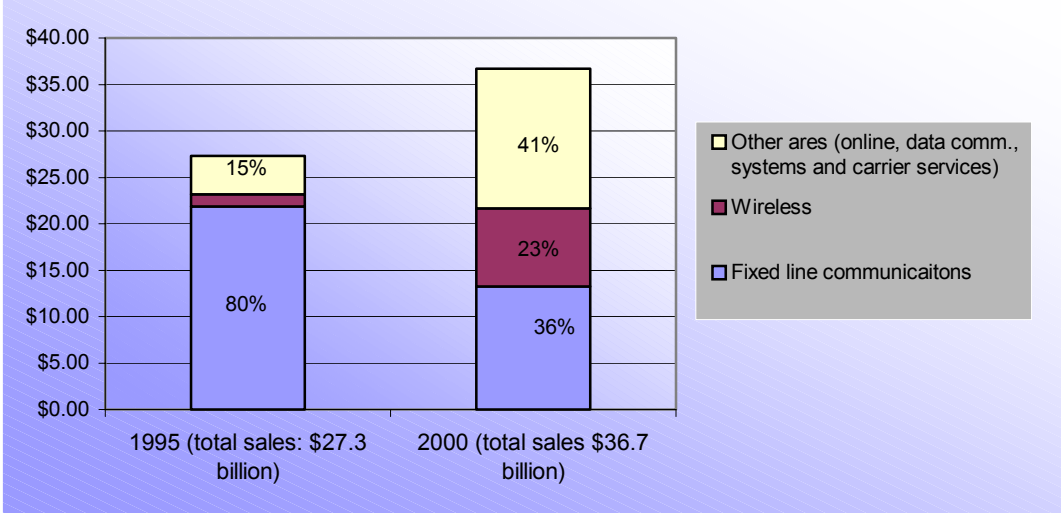
[67] Reuters "Experte – Zwei von drei Telefongesellschaften droht das aus", April 29, 2001 at http://de.biz.yahoo.com.

III.E.4. Should the Government divest itself from it's holding in Deutsche Telekom?

Yes. The government should definitely commit itself to a scheduled divestment from its holding. However, there are legitimate concerns. First, the government has certain responsibilities vis-à-vis the company, its workforce and the firm's many small stakeholders. During the market liberalization and privatization of Deutsche Telekom, the government had to balance advocating an effective regulatory system that prevented the incumbent from using its dominant position and ensuring that Deutsche Telekom did not get into financial trouble, subject to takeovers, or even bankruptcy. The government also encouraged the German, mostly inexperienced, public to invest in Deutsche Telekom, promising high returns. The plummeting stock price resulted in many letters addressed to the government from angry stockholders. The stock price determines the value of the government's holding and thus influences the government budget. With the large budget deficit, government officials are reluctant to sell the stake at the current low share price. Nonetheless, these reasons don't justify the protection of the firm's stock value, for the subsequent reasons:

1) Deutsche Telekom is the largest European telecommunications firm and the third largest in the world. The firm has successfully transformed its business operations from a national basic fixed-line communications provider to an international business firm engaged in the thriving communications business. The current debt crisis results in the expensive 3G auction as well as numerous investments — not in the firm's inability to compete in the market. The company does not require protection anymore. Figure 16 illustrates the transformation of Deutsche Telekom and its growth in total sales since privatization.

Figure 16: Transformation of Deutsche Telekom: Sales according to business activity:



Source: The Wall Street Journal, page A17, April 27, 2001.

2) The fall in stock price has been unavoidable under current market volatilities. In addition, most other former state monopolies, such as British Telekom or the Spanish Telefonica, are currently experiencing similar downturns, again, mainly due to the 3G licenses auction and other investments. However, there is no apparent reason why the company's shareholder value should not increase again. In addition, the stock market bubble was beyond control of the government and any attempts by the federal government to rescue the share price are deemed to fail. The German shareholders were perfectly informed about market risk and must bear the consequences.

3) Government ownership puts Deutsche Telekom at a disadvantage. Public shareholding leads to accusations of government protection from the competitors, but more importantly, it harms the firm's opportunities to expand through mergers or takeovers of foreign companies. This is illustrated by the recent VoiceStream deal. International business last year generated 20 percent of Deutsche Telekom's revenues and constitutes therefore a crucial part of the revenues of the firm. Due to government's involvement, the acquisition of the US VoiceStream Wireless Corporation was subject to lengthy and burdensome hearings at the US Federal Communications Commission.[68] The fear of investors that the deal would fail had negative consequences for the firm's share price and damaged the image of Deutsche Telekom.

III.E.5. Why does Germany need a cable network for telephony services?

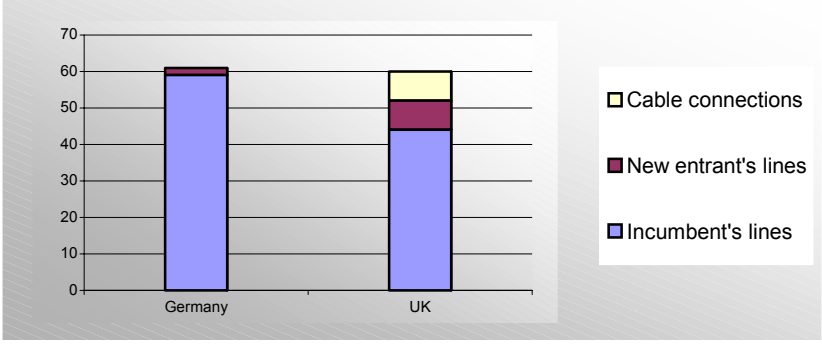
Germany's cable TV network is connected to 20 million households. The network could be developed to provide telephony services and Internet access services and is an alternative to the incumbent's fixed line network. This would greatly contribute to functioning competition in the local market and render numerous burdensome and distorting price control mechanisms redundant. The following points highlight the need to develop the cable network as an alternative telephony and Internet access network:

1) Only through the establishment of alternative networks will the real prices for access to the local loop and the German end-user be established.

2) This will enable the federal government to get rid of a number of burdensome and costly regulatory measures.

3) The cable network offers a great opportunity for business development in the local access market. A comparison to the British market illustrates this (see Figure 17). Compared to the British market, with sizeable competition in the local sector, it is obvious that many business opportunities have been fortified in Germany's cable market.

Figure 17: Incumbent's and new market entrants' fixed lines per 100 inhabitants.

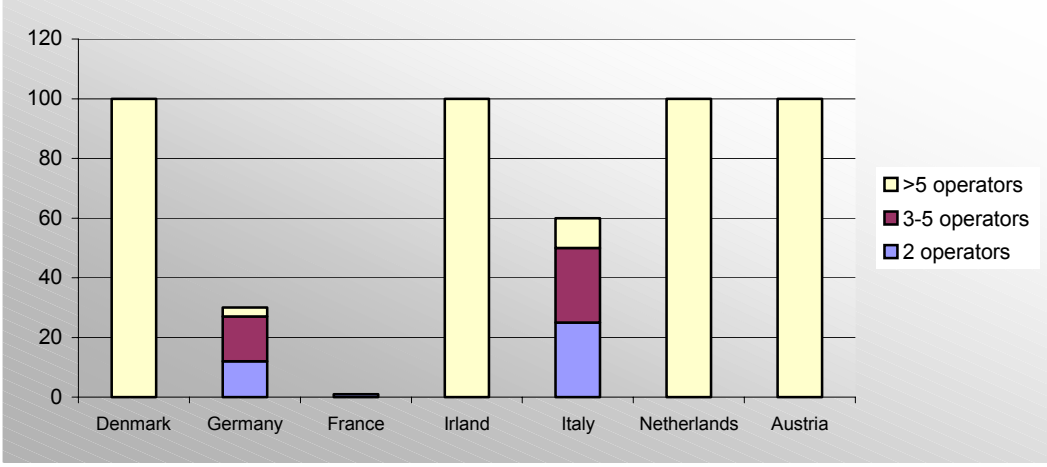


Source: European Commission "Sixth Report on the Implementation of the Telecommunications Regulatory Package", December 2000. Available at www.europa.eu.int.

[68] The FCC finally approved the acquisition on April 25, 2001.

4) The lack of competition in the local telecommunications market results in a lack of operator and service choice for the German consumer. Only 12 percent of the German population can chose between two operators in the local market, 15 percent can chose between three to five operators and three percent can chose between more than five operators. In the European comparison, Germany is lagging far behind its neighbors (see figure 19):

Figure 18: Percentage of populations with choice of operator in the local market.



Source: European Commission "Sixth Report on the Implementation of the Telecommunications Regulatory Package", December 2000. Available at www.europa.eu.int.

III.F. POLITICAL ANALYSIS

The political section provides an analysis of the main stakeholders and their interests. Table 4 is an overview of all interest parties. It groups the stakeholders into two general groups: pro- and anti-competitive. Annex V provides an analysis of the interests, options, alternatives and objective criteria for each stakeholder.

Table 4: Pro- and anti-competitive stakeholders in the German telecommunications market.

PRO-COMPETITIVE STAKEHOLDERS	ANTI-COMPETITIVE STAKEHOLDERS
GOVERNMENT AGENCIES	
• Regulatory Authority for Telecommunications and Post ("Regulierungsbehoerde fuer Telekommunikation und Post" German regulator)	• Ministry of Economics and Technology ("Bundesministerium fuer Wirtschaft und Technologie" BMWi)
• Federal Cartel Office ("Bundeskartellamt")	• Ministry of Finance ("Finanzministerium"), Division VII, Federal Agency for Postal Affaires and Telecommunication ("Bundesanstalt fuer Telekomunikation und Post")
• Monopolies Commission ("Monopolkommission")	
ASSOCIATIONS	
• Telecommunications Associations: The Association of the Providers of Telecommunications and Value-Added Services (VATM), Bundesverband der regionalen und lokalen Telekommunikationsgesellschaften (Breko), DVPT, RegioNet	• Labor Unions: ver.di
• Consumer Associations: Internet ohne Taktung (IOT), Arbeitsgemeinschaft der Verbraucherverbaende (AgV)	• Government employees
• Federation of German Industries ("Bundesverband der Deutschen Industrie" BDI)	• European Public Telecommunications Network Operators' Association (ETNO)
• Association of German Chambers of Industry and Commerce ("Deutscher Industrie- und Handelstag" DIHT)	
BUSINESS	
• Competitors: QS Communications, Novaxess, Colt Telecommunications, AOL, Mannesmann Arcor, debitel, etc.	• German Telecom ("Deutsche Telekom AG")
• Multinationals	• German Post ("Deutsche Post AG")
• Small and medium size business	• German Railways ("Deutsche Bahn AG")
EUROPEAN AND INTERNATIONAL STAKEHOLDERS	
• Commissioner Mario Monti (EU Director General IV: Competition) and Commissioner Erkki Liikanen (Commissioner for Enterprise and Information Society).	

• United States Trade Representative (USTR)	
PARLIAMENTARY GROUPS	
	• Social Democratic Party (SPD)
• Christina Democratic Party (CDU/CSU)	• (Green Party)
• Free Democratic Party (FDP)	• Democratic Socialist Party (PDS)

III.F.1. Deutsche Telekom AG (DTAG)

The vision of Deutsche Telekom's chief executive, Ron Sommer, of creating Europe's biggest and best telecommunications company, capable of offering any service from mobile Internet access to business software, has not been realized. Liberalization, intensifying competition and new technology have been nibbling away at revenues and profits of the big telecommunications company.[69] The cost of acquiring third-generation mobile licenses in the national auctions has greatly contributed to the loss of around half the share value of Deutsche Telekom and crumbled the company's credit ratings. Ron Sommer believes that a large part of this drop is due to the German regulator's policies. In Mr. Sommer's view it is high time to "get rid of the sector-specific rules" and "extreme asymmetric regulation" in Germany. The president of Deutsche Telekom believes the regulatory framework imposed on Deutsche Telekom forces the firm to subsidize its competitors. Ron Sommer's chief interest is in maintaining and backing-up Deutsche Telekom's monopoly position in the German market. Because an alarming amount of revenue depends on the residential connections business, the firm's management will fiercely oppose all measures introducing more competition to the local loop, either through cheaper interconnection charges or alternatives (such as the cable network). To avoid massive price declines and regulatory supervision, the firm offers bundled services in ways competitors cannot match.

Regarding the firm's governmental ownership, it is apparent that Deutsche Telekom has long been comfortable with this arrangement, showing no eagerness to change its ownership structure. Arguably, the firm has learned to take advantage of its politically powerful and financial stable governmental ally. Competitors argue that the numerous risky and often failed gambles Deutsche Telekom undertook in its expansion beyond Germany and into new markets would not have been permitted so easily by stockholders other than the German Government. Numerous Deutsche Telekom attempts to buy into markets resulted in business and financial shipwrecks, such as the collapse of the GlobalOne venture with France Telecom and Sprint or the recent failed bid for Telecom Italia. Regarding the firm's ongoing bid to acquire VoiceStream, a widespread perception in the industry and the market is that Deutsche Telekom is paying too much for its stake, relative to the customer base and revenue streams of VoiceStream.[70]

III.F.2. The German Federal Government

The federal government attempts to balance between protecting Deutsche Telekom and increasing the competitiveness and efficiency of the German telecommunication market. On the one hand the government has a responsibility to protect the incumbent's workforce, its stability and share price, and on the other hand the administration has promised structural reforms, economic growth, and more importantly, the information society to the German voters. Due to pressure from labor unions and an all-

[69] The Economist "Special: Telecoms in trouble: When big is no longer beautiful", London, December 16, 2000.

[70] Deutsche Telekom Slides under the Weight of VoiceStream, Reuters, July 20, 2000.

time high budget deficit of possible DEM 5 billion, it seems the anti-competitive side has gained the upper hand. A financial crisis in Deutsche Telekom would further charge the government debt. The government is therefore likely to oppose any attempts to commit itself to a scheduled divestment from its holdings. Finance Minster Eichel mentioned in a press interview in March 2001 that the government has no plans to sell part of its stake that year.[71] In view of the plummeting share prices, a German government official even stated, "there's no way we're going to sell".[72]

Members of the government have repeatedly stated that the regulatory policies are to blame for loss of employment at Deutsche Telekom and the recent fall in Deutsche Telekom's share price. In its position paper, the Ministry of Economics announced that the German regulator "without undue delay" must refrain from reviewing Deutsche Telekom's prices for domestic and international routes before they enter into force. The Ministry also mandated that business decisions by Deutsche Telekom should "not more than necessary be restricted." The Ministry further reasoned that for business end-users, the prior approval procedure of Deutsche Telekom's end-user prices must be abolished completely by 2002/2003 because new access technologies "bear the potential" for intensifying local competition on the local level. Although there is a complete lack of evidence of intensifying competition in the local market, several petitions of Deutsche Telekom to remove prior German regulator price control are already pending before the German regulator.

However, the central goal of the federal government this year is to engage actively in shaping the information society. The government wants to deliver Internet access for all members of German society and has launched many initiatives and innovations to improve efficiency and secure participation[73]. It recognizes that future employment creation will lie chiefly in the information technology sector. The success of the government's goal depends largely on the competitiveness and efficiency of the telecommunications sector, and Internet access charges. The head of the socialist/green coalition government, "Internet" Chancellor Schroeder, has long recognized the importance of more competition. It remains to be seen which forces will dominate the federal government's course on its telecommunications policy.

III.F.3. Ministry of Economics and Technology (BMWi)

The Ministry's Directorate-General VII, telecommunications and posts, is responsible for telecommunications policy. The DG took over from the former Telecommunications and Post Ministry on January 1998. The essential responsibilities of the Director-General VII are drafting guidelines for the federal government's telecommunications and post policy, legislating, and other European and international tasks (EU, WTO, OECD).

The Ministry, usually a strong supporter of competition, has taken a protectionist approach to Deutsche Telekom. Last summer the Ministry released a Position Paper, which put pressure on the German regulator to relax its regulatory policies by announcing that in the near future Deutsche Telekom would be released from many of its dominant carrier restrictions. The Ministry is not advocating

[71] Welt am Sonntag, Wirtschaft online "Die Telekom ist solide", Finanzminister Hans Eichel ueber die Deutsche Telekom, Haushaltssorgen und mehr Kindergeld", March 07, 2001.

[72] Wall Street Journal, October 24, 2000, Page C1.

[73] For instance, the program "The Internet for Everyone – 10 Steps into the Information Society" and The "Emergency IT Programme to meet the need for IT Specialists in Germany".

accounting separation of Deutsche Telekom to the extent that markets under price control are separable from markets without price control.

However, the same conflict of interest between the introduction of more competition into the market to raise market efficiency and lower prices, especially Internet access charges, applies to the Ministry. A central goal of the Ministry is to prepare the path for the information society. In addition the Ministry is interested in fueling the economic growth and investment to the telecommunications sector. Pressure from European and international bodies has recently increased, urging the Ministry to take a more pro-competitive approach.

III.F.4. Ministry of Finance (BMF)

The pressure on Deutsche Telekom's share price created through some regulatory measures has concerned the Finance Ministry. The Finance Minster, Hans Eichel, is a supporter of less stringent regulatory policies due to the government's direct share ownership of Deutsche Telekom. Mr. Eichel would like to see the price of the shares rise. The current German government's budget deficit for this year is projected to be as high as DEM 5 billion. The low shareholder value of Deutsche Telekom's stock could burden the budget further.

However, Mr. Eichel is at the same time a keen supporter of economic reforms. The long-overdue tax reform package drawn by the Finance Minister was successfully introduced lat year, cutting taxes on personal income and business revenues and abolishing capital gains on corporate shareholdings. Business applauded the reform, and the package is expected to stimulate a wave of economic activity.

III.F.5. The Independent Regulator: German Regulatory Authority (RegTP)

The Regulatory Authority for Telecommunications and Posts ("*Regulierungsbehoerde fuer Post und Telekommunikation* RegTP) was created on 1 January 1998 as a higher federal authority attached to the Federal Ministry of Economics. The German regulator has taken over the functions of the former Federal Ministry of Posts and Telecommunications and of the former Federal Office for Posts and Telecommunications, which dealt with the affairs of the former monopolist. The special task of the regulator is the promotion and development of the post and telecommunications markets through liberalization and deregulation. The body oversees compliance with the provisions of the Telecommunications Act and with conditions, administrative orders and orders imposed in accordance with this act.

Generally in favor of a competitive telecommunications market, the German regulator seems to lack the necessary resources to evaluate the increasingly complex tariff structures and the growing number of cases to be handled. The authority also seems to lack an understanding of seemingly minor irritations caused by Deutsche Telekom's anti-competitive practices on the competition. Generally, the regulator has a greater understanding of the incumbent's problems and needs than those of the new market entrants. This is because the body replaced the former Federal Ministry of Posts and Telecommunications, whose primary mission was to supervise and protect activities of the former Federal Post and Telecommunications Monopolies.

Under the new administration, the regulator has come under increasing political pressure to relax the regulatory regime. After the previous President of the regulatory body resigned in January, allegedly due to increasing political pressure to relax regulatory policies, the new candidate, Mr. Knuth, an SPD

member and former Vice-President, is expected to take decisions that are more Telekom-friendly in order to mitigate the pressure on the share price.

III.F.6. Federal Cartel Office ("*Bundeskartellamt*")

The Federal Cartel Office is an independent higher federal authority responsible to the Federal Ministry of Economics. The President of the Cartel office is Dr. Ulf Boege. The main task of the Bundeskartellamt is to apply the Act against Restraints of Competition *("Gesetz gegen Wettbewerbsbeschraenkungen")*, which was enacted to protect competition and came into force on 1 January 1958. The Federal Cartel office, together with the regulator, takes the decision whether Deutsche Telekom is market-dominant in a specific market. However, in the telecommunications sector the role of the Cartel Office is reduced to that of mere observer.

The Cartel office has repeatedly expressed its interest in policies creating more competition in the German telecommunications market. The office would also like to see the development of an alternative cable TV network and stricter legal enforcement of the German competition law. However, the office lacks authority to press for policies in this regard.

III.F.7. Monopolies Commission ("*Monopolkommission*")

The Monopolies Commission is an independent body. Every two years, the Monopoly Commission issues reports on competitive conditions in Germany. The reports examine whether equal and effective competition has been achieved in the relevant telecommunications markets, such that special regulatory measures regarding market dominant firms, particularly in regard to tariffs, are no longer necessary.

The Monopolies Commission concluded that functioning competition in the markets for voice telephony in the fixed network does not yet exist. The Ministry of Economics and Technology and the Regulatory Authority disagreed with these observations. In its last report in July 2000, the Commission concluded there was not yet self-sustaining competition in any market (local, national, or international) and that the current degree of competition can only be sustained by retaining the present regulatory framework in its entirety (i.e. *ex ante* regulation of prices charged to operators and to end users). The German government commented on the report in summer 2000, disagreeing with the Monopolies Commission on a number of points, and arguing that competition in certain markets is already functioning. The regulatory body, on December 1999, decided to except tariffs for international interconnection from tariff regulation, arguing that competition had been established.

III.F.8. Parliamentary Groups

III.F.8.1. Social Democratic Party (SPD)

The SPD heads the federal government together with the Green party, taking office in October 1998 under Chancellor Schroeder. The SPD, under pressure from labor unions, has generally opposed liberalization. Beyond the threat to the lost jobs, the SPD argues that liberalization and cost-based pricing would favor the interests of large corporate customers, particularly users of long-distance, at the expense of small residential customers, who mainly use local service.

However, with Chancellor Schroeder as the head, the party has embarked on a more pro-competitive approach. The SPD's market-oriented membership seems to have gained the upper hand over members giving priority to social values and job protection. The German Chancellor, Gerhard Schroeder, believes the social market economy should provide universal service and create jobs. He

advocated the introduction of the Internet flatrate in the whole Republic for under DEM 100. The SPD Bundestagsfraktion took up the flat rate issue after the court ruled that Deutsche Telekom was not required to offer a wholesale flatrate to the competition.

Nonetheless, strong protective interests remain an integral part of the parliamentary group. Mr. Barthel, a party member and Chairman of the German Parliament's Telecommunications Subcommittee, publicly declared that he wanted to relax price control on Deutsche Telekom. Mr. Barthel is an influential secretary of a trade union in Bavaria. In his paper he urges the legislature to amend the German Telecommunications Act, since otherwise

"There exists the danger that an excessive burden is put on Deutsche Telekom (…) the mechanisms [in the German TK act] that only the market- dominant operator must open its infrastructure and its cost calculations to competitors has lead to distortions of competition on the international level to the disadvantage of over-regulated national incumbents".

Mr. Barthel also criticized the regulators flat-rate decision, according to which Deutsche Telekom must offer a wholesale flat rate, denouncing it as "bowing down to massive pressure of certain interest groups". Based on Mr. Barthel's paper the SPD is expected to introduce a formal bill to amend the German Telecommunications Act. According to sources of the regulator there is the belief that Mr. Barthel's position paper could be imposed on the German regulator as a binding guideline for its policy and constitute a serious blow to competition, undermining the German regulator's position as independent.

III.F.8.2. Christian Democratic Party (CDU/CSU)

The Christian Democratic Union, lead by Angela Merkel, and its Bavarian sister party, the Christian Social Union, generally support a pro-competitive approach. The opposition party has repeatedly warned against a change in regulatory policy in favor of Deutsche Telekom. The party openly criticized the position of the SPD regarding the relaxation of the regulatory framework and the letter of SPD member Klaus Barthel.[74] On the subject of the cable network the CSU-government in Bavaria has repeatedly urged for the separation of Deutsche Telekom from its cable holdings.

III.F.8.3. Alliance 90/The Greens (Buendnis 90/Die Gruenen)

The Greens, having an environmentalist, pacifist platform, are the junior partner in the federal coalition government. Considering that the Greens have never before served in federal government, the party has quite successfully pushed its agenda. The party succeeded positioning its members in the health, environment, and foreign affairs ministers right at the beginning. A survey conducted last year, showing that Green party voters were amongst the most frequent Internet users, resulted in the Greens considering their party the "party of the Internet". The party has since supported the introduction of a "real" flatrate for the German consumer. Strong support for more competition in the telecommunications markets was recently expressed by Michaele Huestedt.[75] In her position paper the delegate of the Green Party put forth strong arguments demanding:

- No relaxation of the regulatory framework;

[74] Yahoo-News "Union und Verbaende warnen vor Aufweichung der Telekom-Regulierung", December 5, 2000.

[75] See Michaele Hustedt and Grietje Bettin"Fuer Wettbewerb im Telekommunikationsmarket", Febrary 15, 2001. Available at http://www.michaele-hustedt.de/Wettbewerb.rtf.

- Cheap Internet access;
- Creation of an independent cable network;
- A single European telecommunications market.

III.F.8.4. Liberal Democratic Party ("Freie Demokratische Partei" FDP)

The Free Democratic Party (FDP) identifies itself as a relatively market-oriented, civil libertarian party. The FDP has traditionally pressed for more market liberalization. The party decided to use the flatrate issue to its advantage and has repeatedly criticized the Economics and Technology Minister Werner Mueller for not opening up the de-facto monopoly in the local network.

III.F.8.5. Democratic Socialist Party (PDS)

The Party of Democratic Socialism (PDS), which is the successor party to the SED (the communist party of the former German Democratic Republic), holds a similar position to the social democrats on the telecommunications sector.

III.F.9. Consumer organizations

Several German consumer organizations have been demanding cheaper Internet access rates, especially on an unmetered basis. The organizations have been involved in several initiatives, like a Europe-wide Internet strike in 1998, and repeated online campaigns demanding a stop to metered phone charges for Net users. A group calling itself IOT — Internet Ohne Taktung (Internet Without Metered Charges) — has isolated the key demands throughout its campaign:

- Flatrate, affordable and unmetered charges for Internet usage.
- A change in Germany's telecommunications law to mandate unmetered charges. It also wants to alter the legal framework to make it more attractive for companies to offer competitive local phone rates. These rates, it says, have been largely unaffected by deregulation.
- The IOT also demands that former monopoly carrier Deutsche Telekom move more quickly to sell off its cable network, which it sees as providing the best opportunity for giving Internet users inexpensive, broadband access. The IOT fears that with the carrier retaining a 25 percent stake in the network, real competition will not materialize.

III.F.10. Labor Unions

In March 2001 Germany's labor unions combined to form the largest labor union in the world: ver.di. The union consists of the former Gewerkschaft fuer Oeffentliche Dienste (OETV), the Deutsche Angestellten Gewerkschaft (DAG), the Deutsche Postgewerkschaft (DPG), the Gewerkschaft Handel, Banken und Versicherungen (hbv), and IG Medien. Ver.di unites approximately 2.99 million members and is responsible for 1000 professions. The underlying incentive for the formation of the "superunion" was to create a critical mass for power and political influence. The German labor unions, long suffering under a shrinking membership, hope to halt the exodus of members with the creation of the superunion.

Most employees of Deutsche Telekom were organized under the union representing all postal workers, DPG, now part of ver.di. The DPG opposed liberalization from the beginning, and in 1986 they launched a major campaign against it. Within the structure of the traditional telecommunications and post monopoly the DPG had been extremely successful in bargaining for job security, benefits, and work rules. In its evaluation of the report issued by the Monopolies Commission, the DPG supports the federal government by suggesting that the sector specific regulations be abolished for the end-user and that the regulator use only ex-ante controls.[76] The decision of the Regulatory Authority to lower the cost of the leased line for the competitors has been fiercely criticized as a "false decision" by the DPG. The DPG argues that the decision was exclusively based on the promotion of competition. According to the union, infrastructure investment in the local network will be discouraged by the decision. [77]

Since competitors have greatly contributed to the creation of much needed jobs in the sector, it is from an outside perspective hard to understand why the unions are so vocally opposing more competition. Some explanations are given below:

- The workforce of Deutsche Telekom is a strong unionized political body whereas the percentage of unionized people working with the competitors is rather small;
- General demographic factors in Germany have increased the average age of the union's membership, leading to a situation where job maintenance is the single most important factor and job creation in new sectors is seen as a threat rather than benefit;
- With many young people not deciding to join unions, the percentage of young entrepreneurial Germans has declined further;
- The imminent loss of more members and the demographics of the membership have forced the unions to take an almost radical stance on the protection of jobs, at the cost of modernization of the economy and the creation of new opportunities;
- Members of the regions where job creation matters most, the former democratic republic, are completely underrepresented by the unions;
- Sectors of the economy that have a large unionized workforce are threatened with survival in today's economy: the coal sector, railways, telecommunications, post and civil servants. These sectors have combined their forces in protecting their workplace, pensions and other benefits.

III.F.11. European and International Stakeholders

III.F.11.1. EU Commission

The primary interest of the Commission is the creation of an open and efficient single European telecommunications market. Problems continue to be the resistance to liberalization from political elites

[76] "Stellungnahme der Deutschen Postgewerkschaft (DPG) zu den Fragen der öffentlichen Anhörung des Ausschusses für Wirtschaft und Technologie", May 15, 2000, at http://www.dpg.org/regulierung.html.

[77] "Regulierungsentscheidung zur Preissenkung bei Teilnehmeranschlussleitung verhindert Infrastrukturwettbewerb", Mach 30, 2001, at http://www.dpg.org/presse.html.

in Member states, collusive policy setting strategies between the public telecommunications operators and the national regulators, and anti-competitive market behavior of the incumbents.

Following a flood of complaints, the Commission launched an investigation into the ways the European incumbents are opening their exchanges to other operators. A report will be delivered, tracking the progress that member states have made on unbundling. The Commission intends to pile pressure on national governments to act with the creation of new legislations. The draft directives dealing with a new regulatory framework for electronic communications, networks and services had their first reading in the European Parliament at the end of February 2001. The directives are central in guaranteeing that there is a single market for telecommunications in Europe. The Commission fears that if regulation continues at its current pace, the development of the whole sector will be hampered, impeding Europe of becoming the trendy information society leaders promised to deliver at last year's Lisbon summit.

Gaps exist between national laws and EU laws as its Member States unequally interpret EU directives. The most recent EU proposed directives intended to spur competition and close the "digital divide" with the United States did not take effect until the end of 2001 and have not yet passed the EU Parliament. Past experience has shown that EU Directives are implemented quite unevenly within the Member States. In the above-mentioned Position Paper, the Ministry already warned, "the adoption of the additional legal standards in compliance with the development of competition must not be obstructed by EU law." The "principle of subsidiarity" (safeguarding the priority of national law over EU law) "must be strictly adhered to." The goal is that "the German legislator should have sufficient room for maneuvering to ensure the competitiveness of German [emphasis added] carriers on the European and global level." Therefore, one should not expect that pro-competitive missives from Brussels would improve the competitors' situation in Germany.

The EU commissioner for competition, Mario Monti, and the commissioner for enterprises and the information society, Erkki Liikanen, are particularly supportive of the EU-wide creation of cheap high-speed Internet access. The Commission's Directory General IV (Competition Policy) has a section dealing with telecommunications policies of the member states.

III.F.11.2. Unites States Trade Representative (USTR)

The Unites States representative's mandate is to advance and protect the interests of US companies in the German telecommunications market. As a result of industry complaints, the German telecommunications market has been under close supervision under the Omnibus Trade Promotion Act for years. This year's annual review of telecommunications trade agreements[78] addressed alleged telecommunications service barriers in five European Member Sates, including Germany. The USTR will continue to monitor developments in these countries as necessary to ensure that they comply with international telecommunications obligations.

III.F.11.3. Foreign telecommunications firms and associations

Foreign telecommunications firms and associations have long complained about the anti-competitive practices of the incumbent, the inefficiency of the regulator to deal with the incumbent's practices and the intermingling of interests between the German governmental and Deutsche Telekom. Their interests are in a non-discriminatory and pro-competitive environment, stricter regulatory enforcement, and more transparency and predictability.

[78] See USTR "Annual review of telecommunications trade agreements" under Section 1377 of the Omnibus Trade and Competitiveness Act of 1988, April 2, 2001. Available at www.ustr.gov.

III.F.12. German Public Opinion Analysis

III.F.12.1. Demand for Cheaper and Unmetered Internet Access

General sentiment is that the high-metered telephone charges, and the general scarcity of cheap fixed-fee usage, inhibit Internet use in Germany. As long as users pay by the minute for staying online, they have little incentive to regard the Web as another medium like radio or television. Consumer associations argue that Internet access in Germany is too expensive and have actively engaged in lobbying activities to convince the regulatory authority of the importance of introducing affordable and unmetered Internet access charges.[79] On March 25, 2001, more than 72,000 Germans signed on to the "flatrate-protest", protesting against Deutsche Telekom's refusal to offer a wholesale flatrate to all Internet Services Providers.[80]

III.F.12.2. Customer Service at Deutsche Telekom

The once state-owned telephone and cable-TV monopoly is known for its unfriendly service and delays for line installation. Although Deutsche Telekom tried to change this image in the years since liberalization, it is difficult to make the firm's employees realize that customers matter, a concept that was ignored when Telekom was controlled by the government. The Telekom employees have not been trained in the techniques of providing friendly, prompt service to their customers because the threat of outside competitors has never before been an issue. The government-worker mindset of its civil servant employees, still forming approximately 40 percent of the employees, is often mentioned as one of Deutsche Telekom's largest problems.

The inertia of the human potential at Deutsche Telekom continues to be a real problem. Business and residential customers report high levels of frustration with Deutsche Telekom's customer service. In a society that relies on the efficient and quick access to information, Deutsche Telekom's service damages the productivity of firms.

III.F.12.3. High Demand for Alternative Operators

Even with numerous federal regulations and requirements, the enthusiasm with which the German public is greeting Deutsche Telekom's rivals is overwhelming. Competitors cannot enter the market nor properly equip themselves quickly enough to meet the demands of the German people. Although the approximately two dozen competitors currently hold less than two percent of the overall market, it seems as though their market share will continue to increase, as will the impact they have on the operations of Deutsche Telekom. Mannesmann Arcor, Deutsche Telekom's biggest rival, has had to increase the size of its staff answering the phone for new subscribers numerous times. Other competitors have cut back on the advertising they had originally proposed because they cannot service any more customers. The new competitors have been scurrying to buy or lease any of the extra lines that are in existence in order to deal with high customer demand. Capacity issues are emerging for much of the competition. For example, MobilCom, a flat-rate charger for long-distance calls, does not have the ability to handle the volume of incoming calls that it is currently receiving. Customers often hear a busy signal.

[79] Heise-Newsticker "Verbraucherverbaende fordern guenstige Internet-Pauschaltarife", November 9, 2000.

[80] Onlinekosten.de "Flatrate-Protest: Mehr als 72000 Protestunterschriften werden an T-Online uebergeben", March 23, 2001 at www.onlinekosten.de.

III.F.12.4. Stock Market Disappointment

The recent stock market crash resulted in a lot of public frustration with the company. The initial public offering of the firm in 1996 lured traditionally conservative Germans to start buying stocks. Some 1.9 million people bought Deutsche Telekom shares. The initial public offering of Europe's largest telecommunications operator proved an enormous success for shareholders, generating rapid gains and an ever-growing new generation of German stockowners. More people invested in subsequent offerings. However, equity prices have since declined sharply and some of the two million private investors who lost money when they invested in Deutsche Telekom are writing angry letters to the government.

IV. RECOMMENDATIONS

To create the information society Germany so urgently needs, the telecommunications market must become more competitive and efficient. More competition in the local access market is vital, as this would result in lower Internet access charges with the ultimate goal of enabling companies to offer unmetered access charges. Based on the background and analysis sections of this paper, I recommend that the CCU demand a number of measures to reach these goals:

- Deutsche Telekom must collaborate with the new market entrants by delivering the same service to the new market entrants as it delivers to itself and its subsidiaries. Transparency at the firm must be increased through
    - Segregated rendering of accounts
    - Open information on network planning and infrastructure
    - Open information on internal planning data for the unbundled local loop
    - Open information on collocations space availability.
- Deutsche Telekom should divest itself completely from its legacy cable TV networks, without keeping a stake in the companies. In addition, Deutsche Telekom should sell the hubs and trunks of its cable network to new market entrants.
- The German government should commit to the legally biding divestment of Deutsche Telekom within a reasonable period of time.
- The authority, independency and efficiency of the German regulator must be reestablished and legal commitments laid out in the Telecommunications Act must be enforced more rigorously. In addition, the regulator shall
    - Establish automatic fining system
    - Introduce more transparency into the regulatory rulings
    - Develop more sophisticated models to evaluate the complex tariff structures of the incumbent.
- Reevaluate the wholesale tariff for the leased line.

The licensing fees, currently being revised by the government, must be closer to the European average and reflect the actual administrative costs.

IV.A. Cooperation and Transparency at Deutsche Telekom

The competitive climate in Germany needs to be more cooperative. By making information on its network planning and infrastructure, internal planning and collocations space publicly available, the incumbent can ensure for market entrants efficient use of the networks, avoiding capacity constraints, backlogs in the delivery of services, and network congestion. By rendering segregated accounts, Deutsche Telekom could be monitored more closely regarding strategic pricing techniques. This would ultimately lead to the establishment of a fair level-playing field between the incumbent and the new market entrants and increase market efficiency.

IV.B. Government Divestment of Deutsche Telekom

To de-politicize the regulatory process the German government must divest its holding in Deutsche Telekom as rapidly as possible. Competitors should be allowed to become stakeholders in Deutsche Telekom, although there could be a cap on individual corporation's shareholding percentage.

IV.C. Creation of Alternative Operators: Broadband TV Cable Network

There is no question the sector specific regulation in the German telecommunications market must be continued until there is significant competition. In the local network market, sector specific regulation must be reinforced to create competition and to lower prices. It is questionable, however, whether regulation of the local market is sufficient to create significant competition and lower prices, including Internet access charges. As long as Deutsche Telekom has a monopoly over the last 'golden mile', the connection to the end user, it can engage in setting the price above the 'real' price. The only way to unveil the real cost for the leased line is through the introduction of competition.[81] The divestment of Deutsche Telekom from its cable holdings is therefore of utmost importance. If the 20 million German households connected to the broadband cable network could access the Internet, there would be considerable competitive pressure on Deutsche Telekom. This ultimately would render the burdensome regulation of the local market needless. The creation of alternative customer access would neutralize misuse of the network monopoly by the incumbent and accelerate competition in the local loop.

I recommend Deutsche Telekom sell its cable network holdings completely, including the central hubs and trunks of the network, without keeping a substantive minority stake in these companies. Deutsche Telekom should offer its remaining stake to its competitors without any strings attached.

IV.D. Stricter Legal Enforcement by the German Regulator

The Regulatory Authority must enforce legal commitments laid out in the Telecommunications Act rigorously, promptly, and in a manner displaying no favoritism toward Deutsche Telekom. Deutsche Telekom must separate its accounts to prevent cross subsidization. The authority and independence from political pressure of the German regulator must be reestablished and transparency and participation in regulatory proceedings must increase. In addition, new models for evaluating Deutsche Telekom's tariff structures must develop so the regulatory authority can detect strategic pricing structures. The regulator should consider implementing binding provisioning intervals and effective (automatic) fines to prevent having to make these decisions on a case-by case basis. The regulatory proceedings have to become more transparent to allow all competitors to participate in any proceeding that impacts their business plans.

IV.E. Reevaluation of Wholesale Leased Line Charges *("Teilnehermanschlussleitung")*

The new fees continue to be too high to make it profitable for competitors to enter the local market. There should be an open and transparent reevaluation of the leased-line tariffs. In view of the difficulties in pricing the local loop, it would be good to have a best-practice benchmark price established by the Commission.

[81] This was illustrated in the United States where the local network operators demanded a change in the monthly flat rate for Internet access due to higher costs resulting from increased usage. Following even more reasonably alternative offers by the cable operators, the local telephony network operators withdrew their demands. See also http://userpage.fu-berlin.de/~dittbern/Telekom/.

IV.F. Reassessment of Licensing Fees

The Federal Government is currently reviewing the regulation on the licensing fees charged by the regulator. Adoption of a revised regulation is pending. Because there is no apparent reason for the German licensing fees to exceed the European average by the current amount, the fees must be revised to reflect charges closer to the European average. By substantially lowering the licensing fees, pressure on the German government and on the Regulatory Authority from institutions such as the United States Trade Representative will abate. A substantial lowering of the fess would generate goodwill from competitors and foreign governments and ease concerns about the regulatory climate in Germany. If high licensing fees constitute a barrier to investment in the German market, as alleged by a number of competitors, a significant lowering of the fees would lead to more investment and more competition. Demand for licenses could in fact increase, compensating for the loss of revenues through the lowering of the fees.

V. COMPREHENSIVE STRATEGY PAPER

A number of steps must be taken to implement the above recommendations. Key to success is an inclusive coalition building strategy, accompanied by a media campaign. The coalition will consist of a core group of members, the Coalition of Communications Users (CCU), which will simultaneously be the umbrella organization for a wider campaign, the "Campaign for Growth of the online economy".

Once the core members and a wider, open membership under the umbrella of the CCU have been established, a three-tier strategy—judicial, legislative and procedural—will be enacted. The strategy will focus on the national level; some steps will also be taken at the European and at the international stage:

Domestic strategy

1) Judicial

- Initiate a class action against the practices of Deutsche Telekom under the German court system on the grounds that several legal requirements laid out by the Telecommunications Act are not carried out by the incumbent, adversely affecting the German telecommunications user.

2) Legislative

- Enact legislation requiring the complete divestment of Deutsche Telekom from its legacy cable network.

- Enact legislation on timelines for the progressive divestment of the federal government from its holdings in Deutsche Telekom.

3) Procedural

- Establish a Parliamentary inquiry commission to investigate whether changes to Germany's regulatory arrangements are necessary to ensure the regulatory environment delivers cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users.

- Reevaluate charges for access to the local loop by the regulatory authority.

- Ensure that revised regulation on the licensing fees is cost-oriented and closer to the European average.

European Strategy

3) Judicial

- Initiate a lawsuit under the European court system on the grounds that several legal requirements in the Directives of the EU, such as requirements to segregate its accounts, are not carried out by Deutsche Telekom.

4) Legislative

- Recommend through the Commission setting a best practice price for access to the local loop.

In the course of building support and initiating legal action, negotiations will be pursued with Deutsche Telekom and other stakeholders. Steps will also be taken at the European and international level (United States).

V.A. COALITION BUILDING STRATEGY

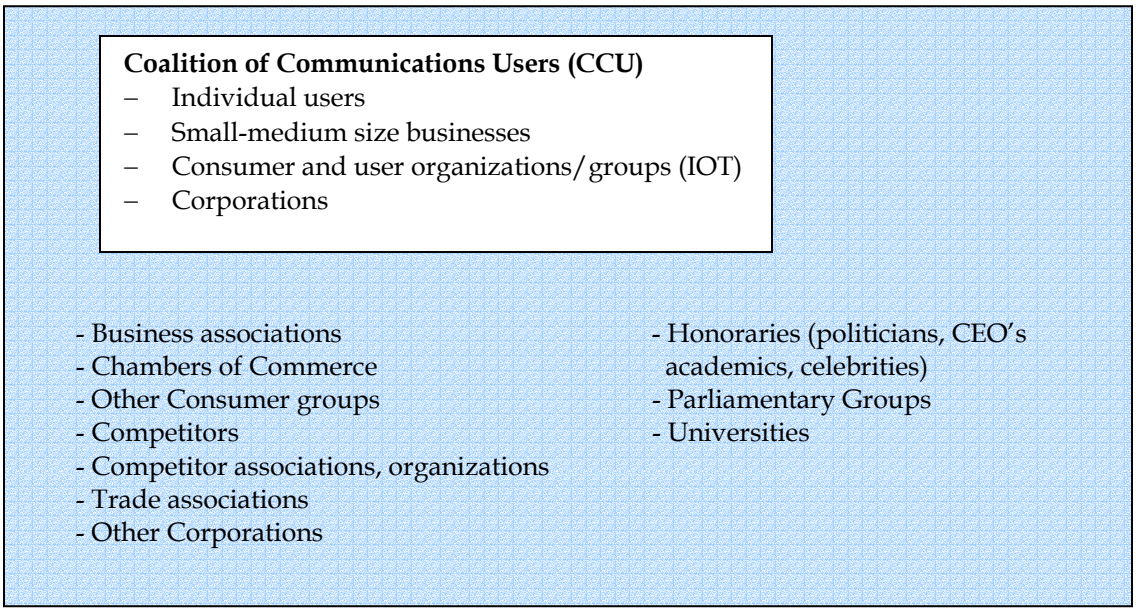
The Coalition of Communications Users (CCU) shall consist of a core membership, including individual consumers of telecommunications services; small- and medium-sized business, corporations, and consumer initiatives, such as Internet Ohne Taktung (IOT). The objective of the CCU is to increase the efficiency and competitiveness of the German telecommunications market and to introduce inexpensive and unmetered Internet access across the country. The CCU will also serve as the umbrella organization for the wider campaign, the "Campaign for Growth of the Online Economy", which aims at cutting the cost of Net access. The following parties will be part of the campaign:[82]

- CCU
- The competitors
- Competitors associations and organizations (VATM, Breko, and others)
- Honoraries (Politicians, academics, celebrities)
- Industry associations
- Chambers of commerce
- Parliamentary Groups (The Greens, the FDP)

The CCU will coordinate the efforts of all interest groups and brief members on the strategic planning and course of action of the campaign. The umbrella organizations will launch a Website providing links and information on all members. The first step in setting up the CCU and the wider campaign will be to invite pro-competitive interest groups for meetings and conferences in order to gain their support and membership. Once a core membership has been built, the CCU will organize a media campaign to create publicity, gain individual members and initiate the public debate on the issue.

[82] Foreign industry groups, such as CompTel and the American Competitive Carrier Association, should be encouraged to participate. US interest groups frequently have extensive lobbying and coalition-building experience and contacts to German ministries, which can be taken advantage of. However these groups should not be part of the core coalition.

Organizational structure **"Campaign for Growth of the Online Economy"**



Establish Committee of Academics

Once members of academia are publicly supporting the "Campaign for Growth of the Online Economy", the CCU shall establish a Committee of Academics with the mandate to investigate the competitive situation in the German local market and to suggest a comprehensive strategy to increase competition and efficiency. Special emphasis will be given to the introduction of low Internet access charges and to the introduction of a flat rate for the German consumers and business users. The Committee of Academics shall conduct studies and issue reports outlining steps that must be taken to embrace the online economy. The findings will be used to gain political leverage for the campaign. Academics shall be encouraged to meet directly with the relevant politicians.

Conferences

The CCU should organize conferences bringing together the interest groups mentioned above to inform the parties about the goals of the CCU and the overarching campaign. Interest groups should be invited to outline their concerns and proposals to improve the situation. The CCU shall invite all members to coordinate the efforts by joining the core coalition or the campaign.

Once a core membership has been build, the CCU shall use conferences as a medium to build support for the goals of the campaign among the broader public. The campaign should use existing conferences, such as the Cebit in Hanover, to reach the German Internet consumers. Prominent politicians, industry representatives and celebrities shall be invited to talk about the shortcomings of the regulatory framework, the costs to society and the benefits of more competition in the market, especially as regards the Internet access charges.

National Consultant

The success of the strategy depends largely on effective organization and in-depth knowledge of the German political and media environment. The CCU should therefore hire a national consultant with expertise in these fields. The consultant should be comfortable in dealing with the German government and provide means to meet with top executives.

V.B. DOMESTIC STRATEGY

Judicial Strategy

The CCU shall initiate a class action against the practices of the incumbent under the German court system. Every legal person adversely impacted by the practices of the incumbent shall be enabled to sign on to the lawsuit. A law firm with outstanding expertise in the telecommunications sector shall outline on which grounds Deutsche Telekom could be challenged. These findings shall be distributed to all coalition partners and members will be encouraged to join the class action. Once a significant number of legal persons have signed the class action, the CCU will make the information widely available to the leading national media (for more information of the media campaign see public relations strategy).

Legislative Strategy

Legislative strategy shall be pursued in tandem with the judicial action. The CCU shall build support for the following legislative steps:

- Legislation requiring Deutsche Telekom to sell its remaining cable network and minority stake in the new cable companies.

- Legislation requiring the scheduled divestment of the federal government's holding in Deutsche Telekom.

Legislation #1: Bill requiring Deutsche Telekom to sell its remaining cable network and minority stake in the new cable companies

The CCU, together with a legal advisor, shall draft legislation requiring Deutsche Telekom to completely sell off its cable networks holdings, including the central trunks and shaft of the network, without keeping a substantive minority stake in these companies. The draft legislation should be circulated amongst supporters of alternative network providers, such as the Cartel Office, Monopolies Commission and members of the CDU/CSU and other parliamentary groups. A minister, or a member of the parliament shall initiate the bill.[83]

The message associated with the draft legislation shall outline:

- That without the complete divestment of Deutsche Telekom, the development of truly independent alternative operators will be stifled because even after all nine cable holdings are sold, Deutsche Telekom will be in a position to influence considerably the market. The

[83] If a representative of the Bundestag wishes to initiate the bill, it must be signed by 34 other parliamentary members prior to introduction. Annex provides an overview of the legislative process in Germany.

company's substantial minority stake in all entities ensures a significant amount of control over the managerial operations and business decisions of the new companies. The company only sold the coaxial cable together with the receiving facilities and amplifiers. The cable network hubs and trunks continue to be in Deutsche Telekom's possession giving Deutsche Telekom the means to influence the price by leasing these essential facilities to the new companies.

The message should also stress the advantages of Deutsche Telekom's complete divestment:

- An alternative telephony and Internet network providing competition would enable the market to set prices in the local telephony and in the Internet access sector.
- A number of cumbersome and costly regulatory processes will become obsolete.
- Deutsche Telekom's monopolistic profits will be transferred back to the German users.
- Benefits of market liberalization will be more equally distributed among different members of the society.
- The alternative network will create a vast opportunity for business development in the local access market.
- The German consumer will be able to choose between operators in the local access market, which is likely to lead to better and more efficient customer service.
- Revenues earned by Deutsche Telekom in the bid process for the cable network will raise capital for the indebted firm and most likely have a positive impact on the equity price.

There is broad support from the opposition for the creation of alternative network operators. The CCU can also count on support of the Cartel Office and Monopolies Commission, which despite their lack of authority, could help build support among top executives. Nonetheless the support of the Christian Democrats and Free Liberal Party will not provide an adequate majority vote in favor of the bill (see Annex on the Distribution of Seats in the German Bundestag). For passage of the bill it will be crucial for the CCU to garner support from members of the coalition government, especially the Green Party. The CCU should also engage in building support at the top executive level.

Legislation #2: Bill requiring the scheduled divestment of the federal government's holding in Deutsche Telekom

The CCU, together with a legal advisor, shall draft legislation setting a timeline for the progressive divestment of the federal government from its holding in Deutsche Telekom over a period of five years. The bill shall allow competitors to become stakeholders in Deutsche Telekom, though each corporation's shareholding percentage in Deutsche Telekom would be capped. The draft legislations shall be circulated among parliamentary members supporting the scheduled divestment of the federal government.

Since the government is already committed to divesting its holdings, the question is merely the timeframe of divestment. Nonetheless, the issue is contentious and there will be fierce opposition. Opposition will come from the Ministry of Finance, whose Division VII is responsible for administration

of the federal government's assets. Without the consent of the Ministry the bill is likely to fail since the ruling coalition holds a majority of the seats (see distribution of seats) and passage requires that the majority of the Bundestag deputies vote in favor of the bill. Lobbying efforts should therefore focus on the Finance Ministry.

The CCU shall build support among key parliamentary members for the introduction of the bill. The bill needs to be signed by 24 members of the Bundestag to be initiated (Annex gives an overview of the German legislative process). The message associated with the bill shall clearly stress the need and benefits of the governmental divestment, namely:

- Ease constraints on Deutsche Telekom regarding mergers, takeover, or investment in foreign companies
- Lessen the involvement of the German government in Deutsche Telekom's business and regulatory decisions
- Ease relations with countries worried about the high governmental stake in Deutsche Telekom
- Change Deutsche Telekom's practices towards competitors
- Reduce the budget deficit.

The message shall also acknowledge the difficulties associated with the divestment, namely:

- The low value of stock and high budget deficit
- The responsibility of the government towards the German stockholders
- The low demand for Deutsche Telekom shares by small private investors
- The influence of the government's divestment on the stability of Deutsche Telekom
- The fears associated with foreign corporate control over Deutsche Telekom.

The bill shall address the above problems by drawing options; for instance, there could be restrictions on the percentage of shares owned by corporations. Regarding the low value of the shares, the government might want to negotiate a deal with interested business parties to acquire a stake in Deutsche Telekom for greater than market value.

Procedural Strategy

Procedural issue #1: Establishment of a Parliamentary Inquiry Commission

To trigger a discussion on the adequacy of the regulatory framework, the CCU, together with its campaign partners, shall create a parliamentary inquiry "enquete" commission. The inquiry commission will assess whether changes to Germany's regulatory arrangements are necessary to ensure that the regulatory environment delivers cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users, and if so what those changes should be.[84]

The inquiry commission will be bipartisan, consisting of five members of the parliament who are experts in the area of telecommunications and competition policy. The inquiry should report to the Bundestag after one to two months. The terms of reference for the inquiry will be "to ensure that the

[84] The ministerial inquiry into telecommunications by the government of New Zealand is taken as a guideline for the establishment of the inquiry commission and also serves as guide for the terms of reference of the inquiry commission. A detailed report of the findings of the inquiry commission can be found at www.teleinquiry.govt.nz.

regulatory environment delivers cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users." The inquiry will pay special attention to (1) the introduction of inexpensive and unmetered Internet access charges and, (2) the authority and efficiency of the regulatory body.

a. Inquiry Process

The inquiry team should:

- Hold initial discussions with key industry participants, consumer groups, and the relevant authorities on the relevant issues
- Obtain expertise, including consulting and secretariat services, to assist in examining the issues
- Obtain public submissions for the final report (prepared by the Inquiry team or a consultant) and hold public hearings
- Obtain expert advice where necessary to ensure that due process is followed.

A Website will be launched to inform interested parties on the inquiry's progress. It will provide the greatest possible transparency. The inquiry should release an initial issue paper to identify and discusses key issues. Public, private or governmental submission to that paper should be invited. These submissions should inform the inquiry's preliminary report.

b. Terms of Reference

The inquiry should:

- Assess the extent to which the current regulatory regime ensures that the regulatory environment delivers cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users for the telecommunications services markets.
- Comment on the introduction of unmetered and inexpensive Internet access charges.
- Comment on the authority and efficiency of the regulatory body.
- If the current regulatory regime does not achieve the government's objective, make necessary recommendations for amendments to the regulatory framework.
- Pay due regard to the government's overall economic and social objectives.
- Pay due regard to Germany's progress in the provision of telecommunications services, including a comparison with progress made in other relevant countries.
- Assess how investment in telecommunications infrastructure and services could meet future needs.
- Assess changes to relevant legislation or the introduction of new legislation.

To convince the German government of an inquiry, lobbying efforts should be focused on the German cabinet, since the cabinet generally initiates inquiry commissions. Members of the Bundestag should also be lobbied to support an inquiry commission, especially if efforts through the cabinet are not likely to succeed.

Procedural issue #2: Reevaluation of charges for access to the local loop

The regulator's decision to lower local loop fees by DEM 1 will not sufficiently increase competition in the local telephony and Internet access market. An open and transparent reevaluation of the leased-line tariffs is the single most important element for enabling new market entrants to offer their services. The regulatory authority, the Ministry of Economics, the incumbent and new market entrants should constructively engage in negotiations for a compromise that would allow new competitors to gain traction.

Procedural issue #3: Licensing Fees

The federal government is currently reviewing regulation on licensing fees. The CCU shall follow-up on the process and ensure that any decisions reduce the German licensing fees substantially, bringing the amount paid closer to the European average. Since the legal process to change the licensing fee does not require the consent to the German Bundesrat, the efforts of the CCU shall focus on the Federal Ministry of Economics, the Federal Ministry of the Interior, the Federal Ministry of Finance, and the Federal Ministry of Justice.

V.C. EUROPEAN STRATEGY

Judicial Strategy

As a back up strategy, the CCU could also initiate a class action under the European court system. Every legal person who has been adversely impacted by the practices of the incumbent shall be enabled to sign the lawsuit. A law firm with outstanding expertise of the European directives and recommendations in the telecommunications and antitrust sector shall outline which grounds Deutsche Telekom could be challenged (for instance, non-adherence to the legal requirement to segregate its accounting system).

Legislative Strategy

The European Commission should be encouraged to issue a recommendation (soft law) on a best-practice benchmark price for the local loop. The price range established should enable new market entrants to gain competitive traction in the local market. The Commission's DG Competition and DG Information society, and Members of the European Parliament shall be approached with the demand for the establishment of a benchmark price.

V.D. INTERNATIONAL STRATEGY

Procedural Strategy

The United States Trade Representative (USTR) should be encouraged to step up its diplomatic efforts in demanding a more open and transparent investment climate in the German telecommunications sector.

V.E. DOMESTIC POLITICAL STRATEGY

Generally support is widespread among the German government and other parliamentary groups for the introduction of more competition into the German telecommunications market and for inexpensive and unmetered Internet access. Nonetheless, the federal government must take careful steps to introduce competition due to the strong political muscle of the unionized labor force. Despite the clear and well-established potential for job growth through increased competition in the market and even with the incumbent, the unions continue to insist that the regulatory framework is responsible for job losses at Deutsche Telekom. To be successful with the passage of any legislation in the parliament, the CCU will have to build support among the unions. Another hurdle is the fear of foreign ownership or even bankruptcy of Deutsche Telekom. The following steps will be key to the success of the proposed legislation and inquiry commission:

1. Gain the support or at least consent of the labor unions

2. Gain the support at the executive level of government, focusing on key executive members, such as Chancellor Schroeder, Economics Minister Mueller, Finance Minister Eichel and the Minister of Labor, Walter Riester

3. Build support among members of the parliamentary groups, especially among the relevant committees and working groups.

V.E.1. Labor Unions

As a consequence of demographic factors and the imminent loss of membership, unions have taken an increasingly radical stance on job protection. As outlined in the stakeholder analysis, the workforce of Deutsche Telekom is a strong unionized political body, whereas the percentage of unionized people working with the competitors is rather small. There are therefore no incentives for the labor unions to protect jobs with the new market entrants. To build support with the unions, the CCU should:

- Organize meetings at the top executive level between labor union representatives and major representatives of the telecommunications industry (AOL and other big competitors). The competitors should outline the potential for job creation by the new market entrants.

- Offer to deliver speeches at labor union gatherings highlighting the potential of job growth in the new economy and the important role of the telecommunications sector.

- Send memorandum to the unions outlining the commercial, economic and social benefits of more competition in the telecommunications sector.

- Publish articles in labor union brochures on the job creation potential of the telecommunications sector.

V.E.2. Chancellor Schroeder

Being a strong supporter of the new economy, labor and sectoral reform, Chancellor Schroeder should be constantly updated about the intentions of the CCU and the campaign. The CCU should offer the chancellor an honorary membership with the campaign and invite him to be a guest speaker on the importance of the new economy. However, the CCU shall keep in mind that the chancellor won't be able

to support any steps that are not welcomed by the labor unions, the Finance or Economics Ministry. To gain the chancellor's support the CCU shall keep the chancellor informed about the campaign by:

- Sending memorandum outlining the economic, social and commercial benefits of more competition in the telecommunications sector.
- Meeting with the chancellor, and leaving behind talking points.
- Publishing an open letter in a leading newspaper asking for the chancellor's support.
- Sending press releases.

V.E.3. Ministry of Economics

Since economic advantages of competition in the telecommunications sector are well proven, it is surprising that the Ministry has supported relaxing the regulatory framework. The unions and the need to be cautious in opening the market while guaranteeing the stability of Deutsche Telekom mostly dictate the position of the Ministry. The Ministry might argue that measures thus far are sufficient for the creation of competition in the local network market and that compared to other European countries, Germany's market is one of the most liberal. To elicit support from the Ministry, strong economic arguments are essential.

Outline and send memorandum to the key members of the Ministry of Economics highlighting:

- The cost to society of Deutsche Telekom's monopolistic revenues in the local network market.
- The importance of inexpensive and truly unmetered Internet access for economic growth.
- The potential for job creation.
- The role of the telecommunications sector in bringing onboard young engineers from the former East Germany, thus contributing to the reduction of the employment rate, which is above 10 percent there.
- Economic data, research and statistics enforcing the above points.
- Address counterarguments and concerns the Ministry might raise.

The CCU should also encourage business allies to lobby the Ministry directly and through their respective associations, chambers of commerce, etc. The CCU shall also attempt to get the Cartel Office and the Monopolies Commission to send memoranda and reports to the Ministry regarding the importance of alternative network operators and other such issues.

V.E.4. Ministry of Finance

Without support of the Finance Minister, the government will not sponsor legislation on the divestment from its holdings in Deutsche Telekom. Since the government has already committed to divest, the remaining question is when the government will offer its stake to the public. The legislation should outline a long enough time frame to get the support of the Ministry. The CCU, in memoranda and meetings with the Ministry, shall highlight the advantages of passing the proposed legislation in the Bundestag:

- A commitment to scheduled divestment by the government will ease tensions on the Ministry from the conflict of interest.

- It will mute arguments of the new market entrants and competitor associations that the government exercises rights beyond those of a stakeholder.

- It will facilitate Deutsche Telekom's plans for global expansion, thus potentially raising the firm's stock price.

- It will provide Deutsche Telkom with a timeframe to prepare for the government's divestment.

In private meetings with the Ministry, the CCU or members of parliament interested in introducing the bill should address the Ministry's concerns more directly:

- The government's original intention was to offer the stock to small private investors, however, there might be no demand among small private investors for Telekom stock. Hence the government should consider offering the stock to competing businesses.

- Assuming that new market entrants have an interest in acquiring a stake in Deutsche Telekom, the federal government could consider offering the stake above market value.

- To prevent the risk of foreign takeover, there could be a cap on each business firm's individual ownership.

- These steps would raise revenue for the federal budget while simultaneously providing market entrants an opportunity to participate in decisions taken by Deutsche Telekom though the supervisory board of the firm.

It should be outlined to the Ministry that the proposed divestment of Deutsche Telekom from its cable network will raise profits for the indebted firm and hence have a positive effect on the stock price (this could be observed after the results of the bid process for the regional parts was made public). By supporting the legislation, the Ministry would therefore raise the value of the government's stake in the firm and have a positive effect on the budget.

It should also be emphasized to the Ministry that through active engagement in a competitive market (for instance, through supporting the proposed legislations, a lowering of the licensing fees, the establishment of an Inquiry Commission), the Ministry will ultimately be able to generate more money. This money comes directly from taxes paid by the new market entrants and indirectly through the positive impact of increased Internet usage on the economy.

V.E.5. Ministry of Labor and Social Affaires

The CCU should send memoranda to the Ministry highlighting:

- The potential of job creation through more investment and competition.

- Social benefits flowing of a more efficient telecommunications market.

- The potential to ease tensions in East Germany by creating jobs in the telecommunications sector.

V.E.6. Federal Cabinet

The cabinet members shall be lobbied to build support for the proposed legislation and the establishment of an enquiry commission. Efforts should focus on Gerhard Schroeder, 'the Internet-chancellor', who repeatedly expressed the goals to make Germany an information society and to connect all German citizens to the Internet. Lobbying efforts should also focus on ministers from the Green Party. The Green Party has repeatedly expressed its support for inexpensive and unmetered Internet access. Opposition should be expected from Finance Minister Eichel and Economics Minister Mueller who have both publicly expressed their interest for a relaxation of the regulatory framework. Both Ministers might question the need for an inquiry commission and point to the achievements of the regulatory framework and the relatively high degree of competition in the telecommunications sector. The Monopolies Commission and the Cartel Office should use their authority as independent governmental bodies to persuade the cabinet to take up this issue directly.

The CCU shall highlight the benefits of more competition in the telecommunications market to the Ministers of the cabinet:

- Competition in the local market will significantly lower Internet access charges for business and residential consumers, leading to an increase in usage
- More competition brings faster technological development and more innovation
- Jobs will be created in the most thriving sector of the economy
- Benefits from cheaper usage and new technologies will have a positive effect on the economy as a whole (positive externalities)
- Germany will set the pace for the European telecommunication services liberalization
- Trade relations with the other countries, such as the US, regarding compliance with WTO agreements will not be further strained
- Increased public support for the government.[85]

The cabinet is comprised of 15 ministers:

- Gerhard Schroeder (Chancellor - SPD)
- Joschka Fischer (Foreign Minister – Green Party)
- Otto Schily (Minister of the Interior – SPD)
- Herta Daeubler-Gmelin (Minister of Justice – SPD)
- Hans Eichel (Finance Minister – SPD)
- Werner Mueller (Minister of Economics – independent)
- Renate Kuenast (Minister of Food Safety and Consumer Protection – Green Party)
- Walter Riester (Ministry of Labor – SPD)
- Juergen Trittin (Minister of the Environment – The Greens)
- Kurt Bodewig (Minister of Transport – SPD)

[85] This last point should be highlighted only to members of the governing parties since the opposition is likely to support the Inquiry and proposed legislation to stress the shortcomings of the ruling parties' policies. However, the CCU shall try to make this a bipartisan issue and aim at getting the support of members of all parliamentary groups.

- Ulla Schmidt (Minister of Health – SPD)
- Christine Bergmann (Minister of Family Affaires – SPD)
- Rudolf Scharping (Defense minister – SPD)
- Edelgard Bulmahn (Minister of Education and Research – SPD)
- Heidemarie Wieczorek-Zeul (Minister of Cooperation and Development – SPD)

V.E.7. Bundestag

Although all parties acknowledge the importance of competition in the telecommunications sector, market liberalization has traditionally had its strongest supporters among members of the Christian Democratic Party (CDU) and Free Democratic Party (FDP). Efforts should hence focus on the members of the opposition parties, mainly the CDU and the FDP, and on the small coalition partner of the SPD, the Greens. The Christian democrats have repeatedly expressed their disagreement with the SPD regarding the relaxation of the regulatory framework and the letter of SPD member Klaus Barthel. Opposition party members and the Green Party shall be lobbied in their constituencies and in their offices in Berlin. Efforts should also concentrate on grassroots workers representing various parties, in order to raise the issue in their respective party forums.

The Internet flat rate issue in particular has gained strong support from the Green Party and the FDP. The Social Democratic Party (SPD), together with the Green Party, have launched several initiatives for the e-society. However the governing social democrats might oppose the proposed legislation and the establishment of an inquiry, arguing that flat rates already exist and that there is sufficient competition in the telecommunications market. Although the social democrats have embarked on a pro-business, pro-market liberalization course under Chancellor Schroeder, the party's traditional political base is among labor unions, pushing for a slowdown of privatization, deregulation and liberalization.

The CCU shall engage in the identification of key personalities of the Bundestag that are likely to support the introduction of more competition to the telecommunication sector and that are authorities in the field. These personalities are:

V.F. INTERNATIONAL POLITICAL STRATEGY

The CCU should encourage foreign business members supporting the "Campaign for Growth of the Online Economy" to lobby the United States Trade Representative (USTR). These members shall write memoranda and letters to the USTR outlining the initiative, and urging the trade representative to step up its diplomatic efforts in Germany in support of the step proposed by the campaign.

V.G. NEGOTIATION STRATEGY

V.G.1. Unions

- Since the unions are in desperate need of more membership, the new market entrants could offer their cooperation and support in recruiting efforts by the unions with their workforce in exchange for support of the legislative strategy.

- The CCU and campaign members should also highlight the advantages for the unions in taking a more pro-competitive approach to gain the attention of young and dynamic members who are interested in being employed with the new market entrants. Since there is no reason to assume that the legislation will put jobs with Deutsche Telekom at risk, the union could emerge with a fresh image as a job-creating force, thus adequately representing workers in the 'new economy'.

- In exchange for the unions' consent, the CCU could also offer them good press coverage.

V.G.2. Deutsche Telekom

- The CCU, together with all coalition partners, shall draft a list of demands for Deutsche Telekom that will be used in negotiation with the incumbent (like, for instance, the demand for a wholesale flat rate). Coalition members shall agree that in case Deutsche Telekom issues binding commitments to meet these demands, the class action will be dropped.

V.G.3. Chancellor Schroeder

- The CCU should make clear to Chancellor Schroeder that in exchange for his support, the campaign would ensure positive press coverage, revealing him to be a supporter of German Internet users and business.

V.G.4. Finance Ministry

- In drafting legislation on the federal government's divestment from its holdings in Deutsche Telkom, the CCU should leave room for possible negotiations with the Finance Ministry regarding the binding time schedule for divestment. In exchange for the Ministries' support, the CCU could extend the time period.

V.H. PUBLIC RELATIONS STRATEGY

Media Objective

The media should be engaged to convey to the German consumers that they are paying too much for Internet access. The following message should be transmitted: to lower the Internet access charges we need more competition in the German telecommunications market.

Target Audiences

Young people, start-ups, small and medium-sized business, think thanks, corporate business, and all pro-competitive interest groups outlined above.

Goals

- Inform the public of its high Internet access charges with an international comparison.
- Raise awareness about the lack of competition in the German market, especially the local telephony market.

Recommendations

- Organize press conferences or use existing conferences such as the Cebit in Hanover to highlight the messages laid out in the Campaign
- Send out press releases and media advisories
- Prepare a list of possible questions and answers
- Articles, advertisements, op-ed pieces and other informational campaigns should be placed in various media outlets in Germany.

Media Outlets

- Der Spiegel, leading weekly journal
- Deutsche Welle, German radio
- Die Welt, daily newspaper
- Die Zeit, weekly newspaper
- Financial Times Deutschland, daily newspaper
- Frankfurter Allgemeine Zeitung (FAZ)

- Handelsblatt
- Wirtschaft Woche, leading business weekly

Operational Document I: Sample White Paper

Coalition of Communications Users (CCU)
"Gateway to the Information Society"

White Paper to the Federal Government

Foreword

It is with great urgency that we place this white paper "Increasing competition and efficiency in the German telecommunications market to lower Internet access charges" before the federal government. This white paper is the culmination of an extensive analysis of the commercial, economic, legal, and institutional, policy, and political aspects of the German telecommunications market. Once the legislative and procedural steps recommended in this paper are tabled, an extensive process of consultation on the floor of the Bundestag will complete this research. This paper has been drafted in full recognition of the dynamic and demanding changes in the communications market. Our aim was to isolate strategic steps that will have a positive effect on the development of competition in the sector. These steps must be taken by the government to enable the country to keep up with the dynamism in the sector and to transform into a truly information based society.

The Problem

Germany has fallen far behind the United States and the Nordic countries in terms of Internet penetration. The main reasons are the comparatively high local call charges and the incumbent operators' market dominance in the local access market. Although the 1998 telecommunications liberalization has delivered positive results in terms of prices and service and several competitors have entered the German market, they still have problems gaining competitive traction in Germany, especially in the local market. The consequences for the German economy are the following:

- No reduction in local call charges resulting in high Internet access rates on a metered basis
- Low Internet penetration, a direct result of the high Internet access charges
- Lower economic growth rates as a consequence of the country's inability to embrace the Internet, e-commerce and related developments
- Flagging competitiveness of German business firms in the global marketplace due to higher production costs
- Uneven distribution of tariff reductions leading to a situation were certain consumer groups have not yet benefited from increased competition
- Overall costs to society and significant market inefficiencies as a result of Deutsche Telekom's monopolistic market share and practices
- Obstacles to new market entrants and efficient investment
- Strains in the trade relations with other countries.

These issues require immediate action if Germany is not to be left behind in today's fast emerging market developments.

Key Findings

Lack of Competition in the fixed network market

Deutsche Telekom continues to be the market dominant firm in all main telecommunications services. In the fixed network market, the firm has a market share of almost 99 percent in local calls and nearly 80 percent in domestic long distance and international calls combined. In the newly emerging DSL market, Deutsche Telekom already dominates with a share of more than 90 percent. The company's wholly owned subsidiary, T-Online, is the largest Internet service provider in the German market, with a market share of approximately 70 percent.

High and metered Internet access charges

The reduction in call charges has not been evenly distributed among the different sectors. In the domestic long distance market the consumer can pay up to 90 percent less this year than before market liberalization. This price development is not mirrored in the local market. Instead, local call charges have increased by 8.1 percent. Because Internet access charges largely depend on the local call prices, and because Internet use is negatively correlated to the Internet access charges, the high costs for the German consumer are impeding higher Internet use. In the comparison with other OECD countries Germany is one of the most expensive countries in residential dial-up PSTN Internet access prices. A German consumer spending 20 hours per month on the Internet must pay four times more than a British Internet user if it wants to spend an unlimited number of hours on the Net.

Cross-subsidization by Deutsche Telekom

Due to the lack of competition, Deutsche Telekom can set the price in the local market. With the entry of competitors into the market, local call prices would fall and the firm would loose its monopolistic revenues. The monopolistic profits enable Deutsche Telekom to cross-subsidize between long distance and local calls, between the monthly line rental charge and the local per minute charge for voice telephony, and between Internet offers and voice telephony.

Key role of the development of independent networks

The government's intent in separating the incumbent from the cable network was to create a physically alternative customer access to end-users. As long as Deutsche Telekom has a monopoly over the last 'golden mile', the connection to the end user, it can set the price above the 'real' price. The only way to unveil the real cost for the leased line is through the introduction of competition.[86] The divestment of Deutsche Telekom from its cable holdings is therefore of utmost importance. If the 18 million German households connected to the broadband cable network could access the Internet there would be considerable competitive pressure on Deutsche Telekom, ultimately rendering the burdensome regulation of the local market needless. The creation of an alternative customer access would neutralize by the incumbent's misuse of its network monopoly and accelerate competition in the local loop.

[86] This was illustrated in the United States where the local network operators demanded a change in the monthly flat rate for Internet access due to higher costs resulting from increased usage. Following even more reasonably alternative offers by the cable operators, the local telephony network operators withdrew their demands. See also http://userpage.fu-berlin.de/~dittbern/Telekom/.

Government Conflict of Interest

Because the government continues to be a major shareholder of Deutsche Telekom, there is a conflict of interest between the government's role as a policy maker in the sector and its role as a shareholder.

Lack of efficiency and authority of the German regulator

The regulator clearly lacks authority to enforce certain crucial requirements of the regulatory framework, such as the segregated accounting system. The regulator also relies exclusively on reactive, quasi-judicial processes for each individual dispute. To date, no coherent, overall regulatory plan or rule making for the market is evident. The regulator continues to rely on ad hoc decisions under time pressure. In addition, there seems to be a lack of understanding of the economic significance of seemingly minor irritations by Deutsche Telekom. Due to limited knowledge and experience of the regulator, predatory pricing structures of Deutsche Telekom go unnoticed (as it was with T-Online's flat rate for Internet access). This is especially true for the evaluation of the increasingly complex tariff structures.

Local loop fess still hinder the development of competition

The new market entrants must pay such high prices to lease the last 'golden' mile that inexpensive and unmetered Internet access is impossible. Even after the recent tariff lowering, the leased line charges are still too high to enable competition in the local market. The line rental charge must be cost-oriented, to avoid cross-subsidies between different voice telephony services, thereby allowing new entrants to compete in all market segments.

Licensing fees are several times higher than European average

Germany's licensing fees are several times higher than the fees charged by any other European country. The high fees discourage investment and constitute a barrier to entry by telecommunications firms.

The Arguments Against More Competition: Five Common Fallacies

1. There is already enough competition and the regulatory framework should be relaxed

This is not true. There is a definite lack of competition in a number of market sectors and regulation continues to play a crucial role. Defenders of the current competitive situation often argue that the degree of competition in the German market is comparatively high, especially since the German market has only been fully open for three years. However, this is not a valid argument. It is absolutely crucial that the competitors gain a larger market share in Germany for the following reasons:

- Communications technology is evolving at an incredible speed. Germany cannot afford to maintain monopolistic markets in this sector since there is a great risk of being left behind. To take full advantage of today's fast evolving markets and technologies, Germany must maintain functioning competition to drive down prices and offer a great variety of technologies and services in all communications sectors.

- More competition in all market segments is key for success in the numerous governmental initiatives promoting Internet usage and e-commerce.

- The lack of competition and practices of the incumbent lead to strains in the trade relations to other counties.

2. The Government has to be Protect the Incumbent to avoid Job Losses

The protection of jobs at Deutsche Telekom is no longer necessary for the following reasons:

- Although 65,000 workers were be laid off after the privatizations, the workforce reduction program has now concluded that there has been an overall increase in employment at Deutsche Telekom.

- The new market entrants have significantly contributed to job creation in the overall telecommunications market. Jobs with the new market entrants have increased by approximately 150,000 since the market liberalization.[87]

- The current increase of defaults and bankruptcies of small and medium sized competitors shows jobs of the new market entrants are more at risk than jobs of the incumbent. According to a study by the strategic consultancy Roland Berger, two-thirds of the 400 licensed new market entrants will either be acquired by other competitors or go bankrupt in the near future. [88]

3. The government has to protect Deutsche Telekom to provide Universal Services

This is not a valid reason to protect Deutsche Telekom from competition, for the following reasons:

- Functioning competition can provide universal services. Market competition has proven to result in lower prices, thus reducing the costs for all users.

- The only market sector which completely lacks competition, the local market, has the highest prices, putting small users at a disadvantage. The current framework has therefore failed in providing universal service and uniform prices. With the entry of competition to the local market, prices will surely decrease.

- If a competitive market does not succeed in providing universal service and uniform prices, the government could make use of more efficient tools than the restriction of competition to guarantee universal services.

4. Germany does not need another network for telephony and Internet access

This is not true. Germany's cable TV network is connected to 20 million households. The network could be developed for telephony services and Internet access services and serves as an alternative to the incumbent's fixed line network. This would greatly contribute to the development of functioning competition in the local market and render numerous burdensome and distorting price control mechanisms redundant. The following points highlight the need to develop the cable network as an alternative telephony and Internet access network.

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[87] Martin Distelkamp, Dieter Elixmann, Christian Lutz, Bernd Meyer, Ulrike Schimmel: "Beschäftigungswirkungen der Liberalisierung im Telekommunikationssektor in der Bundesrepublik Deutschland, März 2000", WIK newsletter #202, March 2000. www.wik.org.

[88] Reuters "Experte – Zwei von drei Telefongesellschaften droht das aus", April 29, 2001 at http://de.biz.yahoo.com.

- Only through the establishment of alternative networks will the real prices for access to the local loop and the German end-user be established.

- This will enable the federal government to eliminate a number of burdensome and costly regulatory measures.

- The cable network offers a vast opportunity for business development in the local access market.

- The lack of competition in the local telecommunications market results in a lack of operator and service choice for the German consumer. Only 12 percent of the German population can chose between two operators in the local market, 15 percent can chose between three to five operators and three percent can chose between more than five operators

5. The government should not commit itself to the divestment of Deutsche Telekom stock since divestment would have a negative impact on Telekom's stock price.

This is incorrect. The Government shouldn't take any measures that would protect the firm's stock price and instead commit itself to scheduled divestment from its holding. However, there are legitimate concerns related to the divestment of the federal government. First, the government has certain responsibilities *vis-à-vis* the company, its workforce and the firm's many small stakeholders. And second, the stock price determines the value of the government's holding and thus influences the government budget. Nonetheless, these reasons don't justify the protection of the firm's stock value for the subsequent reasons:

- Deutsche Telekom is the largest European telecommunications firm and the third largest in the world. The firm has successfully transformed its business operations from national basic fixed-line communications provider to an international business firm engaged in the most thriving communications business. The company does not require protection anymore.

- The stock market bubble was beyond the control of the government and any attempts by the government to rescue the share price are deemed to fail.

- The current low share price is a direct result of the expensive 3G auction as well as numerous investments — not in the firm's inability to compete in the market. A major reason for the current downturn is the 3G licenses auction and other investments. These investments will pay out in the foreseeable future.

- The government ownership puts Deutsche Telekom at a disadvantage. Public shareholding leads to accusations of government protection from the competitors, but more importantly, it harms the firms' opportunities to expand through mergers, acquisitions and takeovers of foreign companies. This has been illustrated by the recent VoiceStream deal.

Recommended Action

To increase the efficiency and competitiveness of the German telecommunications market and to lower the Internet access charges and truly embrace the Intent society, the CCU recommends that the federal government support a number of measures:

- Legislation requiring Deutsche Telekom to sell its remaining cable network and minority stake in the new cable companies.
- Legislation requiring the scheduled divestment of the federal government's holding in Deutsche Telekom.
- The establishment of a Parliamentary Inquiry Commission
- The reevaluation of charges for access to the local loop
- Licensing fees which are closer to the European average.

Operational Document II: Sample Letter to Potential Coalition and Campaign Members and Supporters

Dear Madam or Sir,

Consumers, consumer associations, businesses and politicians have combined forces to create the Coalition of Communications Users (CCU), serving as the umbrella organization for the "Campaign for Growth of the Online Economy". As the name implies, the goal of the Coalition and the broader campaign is to increase competition in the German telecommunications market, especially in the local network market, and to lower Internet access charges. This issue requires your immediate attention.

The current situation hurts the German residential and business users, who pay up to four times more for staying online than other Europeans. This places Germany's business firms at an increasingly disadvantaged position in the world market. The need for more competition becomes more urgent every day, as rapid technological developments in the sector increase the risk of being left behind. Germany's high unemployment rate is a direct result of the country's inability to embrace the online economy.

We have conducted an extensive analysis of the telecommunications market and subsequently drafted a comprehensive strategy to increase its competitiveness and efficiency. This will make Germany a truly information based economy. The CCU will take a number of judicial, legislative and procedural steps to implement the strategy. These measures need your support and contributions. If we succeed these measures will increase the competitiveness and efficiency of the German telecommunications market, bring about lower Internet access charges and finally bring the Online Economy to Germany.

Please join us in support of the efforts of the CCU and the "Campaign for Growth of the Online Economy".

Yours truly,

Campaign Coordinator
List of members of the coalition
List of supporters of the campaign

Operational Document III: Sample Open Letter to Chancellor Schroeder

Open Letter to Chancellor Schroeder:
Communications-Users 2001 urge the Government
To truly liberalize the telecommunications market

Imagine paying by the minute every time you watched TV — whatever the channel — on top of the license fee. The idea seems preposterous and yet as Internet users, that's what per-minute billing of online telephone time means. We believe this is wrong — wrong that Internet users continue paying artificially high call charges and wrong that the development of e-commerce is being held back in Germany. We're publicly calling for change — for the government to do its part to help introduce cheaper and truly unmetered Internet access charges and make the promise of the Internet a reality for everyone. What is the reason for the high and metered Internet access charges in Germany?

The high and metered Internet access charges are simply a result of the lack of competition in the local network market. As long as the German consumers have to pay for Deutsche Telekom's monopolistic profits in the local network market, inexpensive and truly unmetered Internet access charges will not materialize. Germans are already lagging behind the United States, the Nordic countries and even the UK in terms of overall Internet usage — and time is running out.

We, the Communications Users 2001, demand that Chancellor Gerhard Schroeder actively engages in making Germany's telecommunications sector more competitive and efficient. More specifically, we demand:

- Truly unmetered and inexpensive Internet access for all German users
- That the wholesale leased line rates for the local loop be lowered to a rate enabling the new market entrants to offer their services in the local market
- The acceleration of the creation of alternative network operators by drafting legislations that would oblige Deutsche Telekom to sell its cable TV network
- The scheduled divestment of the federal government from its holdings in Deutsche Telekom.

Chancellor Schroeder should prevent economically important decisions from being lost in the wilderness between regulatory bodies in the government and legislature. If the government could meet the demands of the German telecommunications users it would succeed in making Germany a true Information society.

The Coalition of Communications Users (CCU) is an association of residential users, consumer groups and associations, small and medium-sized businesses and corporations. The association represents X German Internet users and X business firms. The goal of the CCU is to make Germany a truly information-based society by introducing more competitiveness and efficiency into the telecommunications market.

Operational Document IV: Sample Op-ed piece

Germany – lost the race to the New Economy over Internet charges?
Cut the cost of Net access and unlock the growth
Potential of the online economy

The high and metered Internet access charges in Germany require immediate attention. German Internet users pay several times more than American users, or consumers in the Nordic countries. As a result, the country has fallen far behind the United States and the Nordic countries in terms of Internet penetration. Germany's inability to embrace the Internet, e-commerce and other developments has its costs: it results in lower economic growth rates, and contributes to the high unemployment. The high and metered charges for Internet access decrease the global competitiveness of German business firms and hamper to country's ability to attract international firms. In addition, the German consumer still must pay Deutsche Telekom's monopolistic profits in the local access market. This situation is not likely to change in the near future. As long as the new market entrants struggle to gain competitive traction in the German market we won't see any real reduction in the Internet access charges or a successful transformation of the country into the Internet society.

If Germany doesn't wish to be left behind in today's fast emerging market developments, the Internet access costs must be cut. To increase competition in the German telecommunications market and lower the Internet access charges, a new coalition, the 'Coalition of Communications User' (CCU), has been formed. The coalition includes residential user, businesses firms, consumer and business groups and plans to step up and coordinate the efforts in demanding more competition in the sector, inexpensive and unmetered Intent access, and more customer choice. The CCU serves as the umbrella for a wider campaign that aims at cutting Internet access costs and unlocking the growth of the Online economy. For more information on the "Campaign for Growth of the Online Economy" and the CCU, please visit our Website at URL

The following persons are supporting the campaign:
Celebrities
Politicians
Businessmen

Annex I: Estimated First Year Budget for the CCU and the Campaign

Staff		
Coordinator	$	50,000
Consultant (2 month)	$	40,000
Assistant to coordinator	$	25,000
PR Officer	$	50,000
PR Assistant	$	25,000
1 Administrative Staff	$	25,000
Office		
Office Space in Berlin (rent)	$	12,000
Office Expenses	$	5,000
Other expenses		
PR Expenses (including media and travel)	$	30,000
Website (Including maintenance)	$	60,000
Total Cost (approximation)	**$**	**322,000**

Annex II: Distribution of Seats in the German Bundestag

Table 5: Distribution of seats, German Bundestag:

Distribution of seats	
SPD	296
Buendnis 90/Gruene	47
(Total government	*344)*
CDU/CSU	245
FDP	43
PDS	37
(Total opposition	*325)*
Total seats	**668**

Source: German Bundestag at www.bundestag.de.

Figure 20: Distribution of seats, German Bundestag

Source: German Bundestag at www.bundestag.de.

Annex III: Legislative Process

Legislative Process	
Draft law	Ministry
Initiation	Introduction of bill, signed by 34 members
First exchange of views	Interest groups and other ministries
Submission to Cabinet	Adoption is passed on to Bundesrat by the Chancellor
Bundesrat: first passage	Bundesrat prepares counterproposals, Government attaches counterstatement
Submission to parliament	Consideration of parliamentary working groups and Bundestag committees
Council of Elders	Decides on date of first reading
First plenary reading	Public debate
Committee stage: Committee meetings	Detailed examination: public hearings, recommendation by committee
Second/third reading	Debate of parliamentary groups, media coverage
Passage by Bundestag	
Consent of Bundesrat	Veto power, sometimes approval required

Source: German Bundestag at www.bundestag.de.

Annex IV: Glossary of Terms

3G — Third-generation mobile telephony (a generic term covering a range of future wireless network technologies, including UMTS)

Alternative Network Operators — Local exchange carriers that compete directly with the incumbent. To date alternative network operators are found only in the larger metropolitan areas.

Analog transmission technology — Analog signals are multiplexed by being combined with a carrier frequency. In FDM (Frequency Division Multiplexing), multiple frequencies are used.

Bandwidth — The bandwidth of a particular communications medium is the amount of information that can be sent over it. The bandwidth of a particular application is the difference between the lowest and highest frequencies it uses. According to the Nyquist theory on sampling, a signal can be accurately reproduced if it is sampled at a rate at least double that of its highest frequency. The more sophisticated the application, the more bandwidth it will need.

Call-by-call or dial-around services — Using call-by-call services, the customer must choose a provider separately for each individual call made and hereby takes advantage of better offers for certain times or certain places. To use call-by-call the customer dials the number of the desired carrier before the (unchanged) dialing code and phone number. Call-by-call works with and without preregistration. Call-by-call without preregistration is probably the easiest way for the consumer and has played a key role in fostering competition in Germany. Call-by-call phone calls are listed on DTAG's phone bill to the customer, albeit separately

Coaxial Cable — Coaxial cable consists of, from the inside to outside, a copper wire, an insulator surrounding the copper wire, a conductive shield surrounding the inner insulator, and an outer insulator. Because of the shielding, coaxial cables avoid leaking signals. For this reason, TV broadcasts are transmitted on coaxial cables. Because there are no load coils or bridge taps, high-speed data transmissions can be supported. Thus, cable TV has much more bandwidth than phone lines.

Collocation — A service offered by a network operator to interconnected network operators whereby the latter may place, install and maintain equipment, software, and databases on its premises in order to interconnect with its network at the carrier's central office (CO), point of presence (POP), or other network location.

Copper Wire — Copper is the oldest transmission medium. Unfortunately, the lack of shielding allowed signals, particularly at the higher frequencies, to leak out. This led to remedies that would later impede high-speed data communications. Upgraded copper wire can be used for ISDN and also broadband DSL lines. The copper wire is still the most important element for the development of competition in the market for private households and small and medium size commercial customers.

Digital Networks — Digital networks can handle multimedia applications, including text, images, speech, and CD audio.

Digital subscriber line (DSL) — Broadband DSL is a high-speed technology for transmitting high-bandwidth information over ordinary copper telephone lines. Individual connections run at speeds from 512 Kbps to 6.1 Mbps. Several variations of DSL exist; when referring all forms, the term xDSL is

sometimes used. Symmetric DSL (SDSL) technology permits data transfer at 1,246 kbits/s speech channels per copper pair.

Fiber optic cable — Fiber optics allow transmission of light waves, which have much higher frequencies than the RF signals of TV. These higher frequencies allow data transmissions at still much higher speeds. Fiber optics are much cheaper than copper per circuit but somewhat more expensive per unit length. Thus, while most of the network uses fiber, the local loops to residences are usually copper. Most fiber is either single-mode or multimode fiber. Single mode fiber, which has a narrower core transmission medium, is faster, because the fact that only one ray or mode can travel through the fiber makes signal regeneration simpler. However, the increased traffic on a strand increases its vulnerability to disruptions.

Fixed wireless access — Another term for wireless local loop (a wireless connection between a telephone exchange and the subscriber's telephone)

Incumbent operators (incumbents) — Telecommunications organizations granted special and exclusive rights by Member States or public operator(s) which enjoyed a de facto monopoly before liberalization.

Interconnection — The physical and logical linking of telecommunications networks used by the same or a different organization in order to allow the users of one organization to communicate with users of the same or another organization, or to access services provided by another organization; services may be provided by the parties involved or other parties who have access to the network.

Integrated services digital network (ISDN) — A standard developed in the mid-1980s that provides a faster way to access voice and data services over public digital networks. In ISDN all signals are digital. Multiple channels can be used simultaneously, thus allowing voice and data applications to be used simultaneously. Basic rate ISDN bandwidth is as high as 264 kbits/s speech channels per copper pair and primary rate ISDN can be as high as 1,564 kbits/s speech channel per cooper pair with two-wire transmission, and 3,064 kbits/s speech channel per copper pair with four-wire transmission.

Leased Line — A transmission facility which is leased by an end user from a public carrier, and which is dedicated to that user's traffic.

Local loop — The connection between a telephone exchange and the subscriber's telephone.

Local loop unbundling (LLU) — A service whereby a telecommunications organization provides unbundled access to its local loop to another telecommunications organization

Mobile telephony network — In the wired telephony network, is connected to a station called the central office (CO). At the CO, the switching that allows communications between one telephone user and another is performed. A higher echelon office serves a group of central offices. The hierarchy of central offices from the subscriber to the highest central office is, respectively, the end office, toll office, primary office, sectional office, and regional office.

Network communication services — In essence, the provision of voice telephony services through the fixed-line network, including access services and local, national long distance and international calling services as well as connections to mobile and online service providers.

Network operators — Operators that install, manage and operate their own (wire or wireless) telecommunications transmission network to provide public telephony services or public network services.

Public fixed network services — The conveyance of calls, messages and signals over a telecommunications network, including any necessary switching; they may be network interconnection services, which are provided to other network operators to enable calls and associated functions to be passed through interconnected networks, or basic retail network services, which are provided to other customers such as end users or service providers.

Public fixed voice telephony — Service available to the public for the direct transport on a commercial basis of real-time speech via the public switched network, such that any user can use equipment connected to a network termination point at a fixed location to communicate with another user of equipment connected to another termination point.

Preselection services — In the preselection procedure, a permanent preset arrangement is set up whereby the customer operates all long-distance calls using the tariffs of the respective provider. Preselection customers receive two bills: one from DTAG for the phone lines, for local calls and any calls to special numbers, and a second bill from the preselected.

Service providers — These customers provide data communication services, and include telecommunication carriers, Internet service providers, cable companies, and wireless communication providers.

Universal Mobile Telecommunications System (UMTS) — A third-generation mobile and wireless communications system capable of supporting in particular innovative multimedia services, beyond the capability of second-generation systems such as GSM, and capable of combining the use of terrestrial and satellite components (Article 2 of the UMTS Decision).

Universal service — A defined minimum set of services of specified quality, available to all users independent of their geographical location and, in the light of specific national conditions, at an affordable price.

Wireless — Wireless communications include microwave, satellite, cellular, and PCS. The advantages of wireless communications include user mobility and the lack of a complex wired infrastructure.

Wireless local loop (WLL) — A wireless connection between a telephone exchange and the subscriber's telephone.

Annex V: Chart of Interests

Main Stakeholders	INTERESTS	OPTIONS	BATNA (Best Alternative to a Negotiated Agreement)	OBJECTIVE CRITERIA
DTAG Chief executive: Ron Sommer 58% Government owned (before Voice-Stream acquisition) 44% directly government owned	Maintain market share and monopolistic profits Increase shareholder value Relax regulatory framework and sector specific rules Global expansion, mergers and takeovers	Make certain concession in less important market segments Mobilize support amongst unions government, parliamentary groups, Ministries Become truly public owned to ease constraints on mergers and takeovers	**Status quo:** maintain market dominant position and monopolistic profits in the local market Use anti-competitive practices to discourage new market entry **Interactive BATNA**: mobilize supporters (unions, shareholders), lobby parliamentary groups, Ministries Expand into foreign markets	Prices have decreased dramatically Increase in number of intercon. requests Interconnection tariffs are set by independent regulator DTAG still regulated in many markets Unbundled access charges are set by regulator Market has only been open for 3 years, local market remains monopoly in most OECD countries
Competitors QS Communications VATM Breko CompTel	Predictable and market oriented interconnections and leased line rates Gain lucrative market share Increase marker share in emerging markets, such as DSL, Internet Timely and fair access to incumbent's network Transparency in DT's network planning and infrastructure Strong regulator Fast regulatory proceedings Competition in the local access markets through alternative operators (cable) Government divestment of DT to end government support	Negotiate on a one-by-one basis with Deutsche Telekom for interconnection agreements Build support amongst new market entrants, telecom associations, small and medium size business, consumer groups Invest in other markets Build own network infrastructure or breach incumbent's network with alternatives - concentrate on business areas which do not rely on the incumbent's network	**Status quo**: concentrate on services with less dependency on DTAG's network (mobile services) **Interactive Batna**: actively protest, file law suits against DTAG under the German Federal court system, with the European Commission, or ask home government to file WTO DSB case Media campaign, lobbying parliamentary members and workers **Coalition building**: business and residential users, international and national market entrants	Insignificant competition in the local market Only 22% market share in the fixed network markets Backlogs in collocations space orders No enforcement of the regulatory requirements: separate rendering of accounts Frequency of legal challenges initiated by DTAG and competitors

Federal government Coalition of SPD and the Greens Chancellor: Gerhard Schroeder	Boost and reform German economy Transform into Internet-based society Increase Internet usage, electronic commerce Leading position in international economy Get reelected Don't alienate labor unions Universal services for all customers Decrease budget deficit Ensure that Deutsche Telekom remains competitive and stable Divest from its holding in the firm Good relations with the European Commission, USTR	Promote lower Internet access charges, demand flat rate Wait with divestment until DTAG stock is up again Urge the regulatory authority to be soft on Deutsche Telekom to protect the firm's stock price, labor and general econ. health Sell stake and generate more wealth through more competition (taxes, licenses) Explain the job creating role of market entrants to labor unions	**Status quo:** draft policies with the aim of protecting DTAG Put pressure on regulatory authority Bow to pressure from labor unions **Interactive BATNA:** Initiate parliamentary inquiry commission to evaluate what changes have to be done to regulatory framework to introduce cheaper Internet access, flatrate, and more customer choice	DTAG's high current outstanding debt Responsibility for shareholders High budget deficit Low Internet penetration Low economic growth Relatively high unemployment Structural rigidities DTAG's stock volatility due to general volatility in international stock markets New market entrants create jobs Employment with DTAG has increased Governments conflict of interest between efficient market competition and DTAG protection (Barthel paper)
Consumer associations	Cheap rates Choice of provider Fast, reliable and service Internet flat rate Universal service More competition, especially in the local market More transparency on rates offered	Build support amongst users for more competition, Internet flat rate, more customer choice Media campaign Coalition building with other interest groups Lobby parliamentary groups, government officials	**Status quo:** spend short time on the Internet due to high cost Patience with customer service **Interactive BATNA:** file class action against DTAG Media Campaign: get broad public support for Internet flat rate, cheaper access, more choice Build coalition with new market entrants to demand for more competition	No real Internet flatrate High Internet access charges No consumer choice in the local market Price increase in local calls since liberalization Long waiting time for service Low Internet penetration

Governmental Stakeholders	INTERESTS	OPTIONS	BATNA (Best alternative to a Negotiated Agreement)	OBJECTIVE CRITERIA
Ministry of Economics Chief executive: Werner Mueller (independent) Directorate VII	Functioning competition in the telecommunications market Strong and stable DTAG Economic growth Domestic and foreign investment Protection of DTAG Relaxation of regulatory policies Release of DTAG from ex-ante price control in certain market segments	Take a more pro-competitive stance: increase investment in the telecommunications market by supporting sound regulation Support the creation of alternative networks Give more authority to regulator by supporting steeper automatic fines for non-compliance Highlight the importance and benefits of more competition to the government	**Status quo:** get investments, while at the same time insuring the stability of DTAG **Interactive BATNA**: increase pressure on the government and regulator to relax regulatory framework	Position paper by the Ministry Large number of new market entrants DTAG is no longer dominant in certain market segments Prices have been reduced Germany is doing well in European comparison Almost no OECD country has significant competition in the local market Low economic growth Structural rigidities Low Internet penetration Not an Internet economy yet
Ministry of Finance Chief Executive: Hans Eichel (SPD) Division VII: responsible for the governments stock	Relaxation of regulatory policies Decrease pressure on DTAG High DTAG share price Low budget deficit High government income (taxes, licenses, etc.)	Try to negotiate a deal with potential investors in DTAG to buy stock at higher than market price Create more government revenue through market growth in telecom. more competitors, more taxes Positive externalities of growth in Internet usage, e-business	**Status quo:** commit to divestment but don't commit to timeframe Wait unlit share price is up again to sell federal holdings **Interactive BATNA:** Make sure that a bill requiring the federal government divestment would not pass the Bundestag, and if that the divestment be scheduled over a long period	Paper by Mr. Zitzelsberger urging for changes in governments regulatory policies in favor of DTAG Low share price High budget deficit Responsibility towards DTAG and German shareholders Government divestment might cause downward pressure on price Expose DTAG to foreign takeover

Regulatory Authority Chief executive: Mr. Knuth (SPD) (Subordinate to Ministry of Economics) Lack of authority	Supervise and ensure sound regulation Balance the interests of competitors, DTAG, government and consumers Increase revenues through granting licenses Ease constraints with new market entrants, foreign governments over regulatory policies	Bow to government pressure and relax regulatory policies Take a more pro-competitive stance, don't bow to political pressure Institute stricter enforcement mechanisms, automatic fines, etc	**Status quo:** try to strike a balance between sound regulation and protection of DTAG's interests Don't make too many concessions to new market entrants **Interactive BATNA:** oppose bill requiring lowering of licensing fees	Real capacity problems in DTAG to comply with certain provision (collocations space) DTAG has a right to challenge regulatory decisions DTAG has engaged in increasing transparency, separate rendering of accounts Leased line price is calculated using objective criteria
Federal Cartels Office Chief executive: Ulf Böge (Subordinate to Ministry of Economics) No authority	Protection of competition in the telecom market More competition in fixed line services Alternative service providers in the local market Complete DTAG divestment from legacy cable holdings	Create reports on the market dominance of DTAG Put pressure on Ministry of Economics and cabinet to continue tight regulatory policies Lobby government officials Build support among government officials for more competition in the market Voice concern about the current situation in press releases	**Status quo:** Continue efforts to restrict market dominance of Deutsche Telekom **Interactive BATNA:** express support for initiatives that aim at restricting Deutsche Telekom's share in monopolistic market segments Highlight the lack of competition in meetings with government officials Build support amongst government official for the introduction of more market competition	Under antitrust law DTAG continues to be a market dominant provider in numerous sectors and there is no good reason yet to lift ex-ante price control No functioning competition yet
Monopolies Commission General Secretary: Horst Greiffenberg (Part of Federal Cartels Office) No authority	Restriction of market dominant players in the telecom market Strict continuation regulation Ex-ante price approval	(same as Cattle Office)	(same as Cartel Office)	Last report by the Monopolies Commission concluding that functioning competition in the voice telephony markets and fixed network does not yet exist High leased line charges lead to monopolistic profits of DTAG

Foreign Stakeholders	INTERESTS	OPTIONS	BATNA (Best alternative to a Negotiated Agreement)	OBJECTIVE CRITERIA
EU Commission DG IV Competition: Mario Monti DG Enterprises and information society: Erkki Liikanen	Harmonization of European telecom market, single market Functioning competition in all market sectors No market dominant providers Low costs, especially Internet access costs across the EU High Internet penetration EU Information society Good trade relations	Report on the implementation of the EU telecom and antitrust framework by each member state Increase pressure on the German government to stricter enforce regulatory decisions, increase transparency, decrease political involvement Highlight the advantages of more competition to the stakeholders Make the issue top priority on the agenda, get parliamentary attention, business support, consumer support	Investigate to increase pressure on national governments Issue new recommendations (soft law) or new legislation demanding more competition, creation of alternative network providers, etc. File a law suit against the federal republic on non-compliance with EU laws and regulations (Recommendation on Accounting Separation and Cost Accounting and Cable Directive)	Numerous complaints by new market entrants and consumer associations Pressure from USTR to increase competition in Germany (Omnibus Trade Promotion Act) No separation of account
USTR Trade Representative Robert Zoellick	Protect and advance the interests of US business Equal opportunities for new market entrants and US businesses Transparency and strict legal enforcement Strong regulator Good trade relations	Continue pressure through Omnibus Trade Promotion Act reports Lobby international divisions of German Ministries Make the issue top agenda point in the USTR, get president attention Raise the issue on top executive level Increase pressure on EU commission	Initiate complaint against Germany under the WTO dispute settlement mechanism Threaten to go to the DSB to increase pressure Lobby on German and EU level Retaliate	High licensing fees Market dominant position of Deutsche Telekom Backlogs in collocation space Lack of enforcement of regulatory decisions

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