

Fordham International Law Journal

Volume 23, Issue 6

1999

Article 10

Price Control and Other Regulatory Issues

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Helmut Schadow

Abstract

Germany's complete overhaul of the telecommunications legislation seeks to ensure easy access to the German market and a level playing field for all, based on regulation that is independent and quick to intervene against any abuse of market power, in other words to ensure a sound and predictable investment climate. Our regulation aims to promote competition in the telecommunications sector and to encourage technological and organizational progress at the same time. This policy stands to benefit all: customers, Deutsche Telekom AG, new entrants, the workforce, Germany as a place to do business, and the prospects of the German economy generally. The World Trade Organization estimates that a quarter of all economic activity in the industrial countries will be accounted for in the future by electronic commerce. Germany is preparing itself for these global challenges and has already made a promising start.

IV. INDUSTRIES IN THE PROCESS OF DE-REGULATION

1. TELECOMMUNICATIONS

PRICE CONTROL AND OTHER REGULATORY ISSUES

*Helmut Schadow**

I. DEVELOPMENT OF THE LEGAL FRAMEWORK FOR THE GERMAN TELECOMMUNICATION SECTOR

On January 1, 1998 the final provisions of the Telecommunications Act of July 25, 1996¹ ("Telecommunications Act" or "TKG") became effective, leading to the full liberalization of the telecommunications market. This legislation was the final stage in the complete restructuring of the German telecommunications sector; in the postal service, the monopoly on letter mail items weighing less than 200 grams remains until 2002. In tandem with European Community ("EC" or "Community") policy, the former state monopolies have therefore now been almost entirely lifted and the postal and telecommunications markets opened to competition.

Posts and telecommunications reform in Germany has taken place in three stages. Stage one, the 1989 Postreform I, separated the sovereign tasks of the state from the operational and entrepreneurial functions, lifted the monopoly on telecommunications terminal equipment, and opened the satellite and mobile communications markets to competition. The second posts and telecommunications package, Postreform II (January 1, 1995), transformed the three enterprises (Telekom, Post, and Postbank) into stock corporations. At the same time, the addition of Article 87(f) to the Basic Law, or *Grundgesetz*, made the admission and promotion of competition a constitutional re-

* Head of Section 121, German Regulatory Authority on Telecommunications and Postal Services.

1. Telekommunikationsgesetz (TKG), v. 1.8.1996 (BGBl. I S.1120) [hereinafter Telecommunications Act].

quirement.² This provision specifies that the Federation guarantee appropriate and adequate telecommunications and postal services throughout the country, to be provided by Deutsche Telekom AG and Deutsche Post AG as well as other private operators on a private enterprise basis. The third stage was then used to abolish the monopoly on voice telephony and on the operation and use of telecommunications networks.

What follows in this Essay will refer solely to the telecommunications sector. A complete overhaul of the telecommunications legislation was required in order that the new constitutional aims could be implemented. Simply adding to the previous arrangements³ would not have been sufficient.

It hardly needs mentioning that the impetus for amending the German telecommunications legislation did not come from German reform policy alone. Rather, the Telecommunications Act came into being as a result of the sector-specific telecommunications policy of the Community, in which the federal government was an active player. The essence of the Telecommunications Act was therefore already set forth. In its July 22, 1993 Resolution to liberalize all public voice telephony services by January 1, 1998,⁴ and its December 22, 1994 Resolution to liberalize telecommunications infrastructures,⁵ the Council of Europe ("Council") thus laid down the principles that would underpin Member States' national law as well as future Community policy. Thus, the basis is formed by Council Directive 90/387/EEC of June 28, 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision⁶ and Commission Directive 90/388/EEC of June 28, 1990 on competition in the markets for telecommunications services.⁷

Over the last few years, other directives have been issued in order to implement the rulings in these two directives about opening the telecommunications markets to competition. It

2. Cf. the section-by-section analysis of the CDU/CSU, SPD and FDP of the draft Telecommunications Act, Bundestag printed paper 13/3609, 33.

3. See Telecommunication Installations Act (FAG), v. 17.3.1977 (BGBl. I S.459); Telecommunications and Posts Regulation Act, v. 14.9.1994 (BGBl. I. S.2325, 2371).

4. Council Resolution of 22 July 1993, O.J. C 213/1 (1993).

5. Council Resolution of 22 December 1994, O.J. C 379/4 (1994).

6. Council Resolution of 28 June 1990, O.J. L 192/1 (1990).

7. Council Directive No. 90/387/EEC, O.J. L 192/10 (1990).

would exceed, however, the scope of this Essay to cite, even as examples, more than a few of the fundamental directives we are familiar with from our daily work.⁸ As a Member State of the European Union (or "EU"), the Federal Republic of Germany has obligations arising from international treaties and constitutional law that require it to transpose these directives into national law by a specified date and to refrain from any sovereign action that would run counter to Community legal instruments.⁹

In all these directives it is envisioned that the EU Member States notify the European Commission ("Commission") of their transposition. In its Communication to the Council, the European Parliament, the Economic and Social Committee, and the Committee of the Regions of May 29, 1997, before the enactment of the provisions of the German Telecommunications Act fully opening voice telephony to competition, the Commission noted approvingly that the TKG provided a "broad framework for the transposition of the whole telecommunications package." Here, the Commission was referring not only to directives already issued at the time of the Communication but also to forthcoming directives, the details of which were not yet finalized but which, in essence, were already featured in the TKG.¹⁰

Already, only one year since the fundamental rules liberalizing the market were enacted, the TKG has proved absolutely robust and has encouraged competition in the markets. An initial assessment is highly positive in what it says:

The privatization and liberalization of the German telecommunications and postal markets has begun successfully.

8. Particularly noteworthy are Directive 97/13/EC of the European Parliament and of the Council, O.J. L 117/15 (1997); Directive 97/33/EC of the European Parliament and of the Council, O.J. L 199/32 (1997); Directive 98/10/EC of the European Parliament and of the Council, O.J. L 101/24 (1998).

9. Article 23(1) and Article 59 of the Basic Law; Treaty establishing the European Community, Feb. 7, 1992, art. 189, O.J. C. 224/1, at 65 (1992), [1992] 1 C.M.L.R. 573, 693 [hereinafter EC Treaty], *incorporating changes made by* Treaty on European Union, Feb. 7, 1992, O.J. C 224/1 (1992), [1992] 1 C.M.L.R. 719 [hereinafter TEU]. The Treaty on European Union ("TEU") amended the Treaty establishing the Economic Community, Mar. 25, 1957, 298 U.N.T.S. 11 [hereinafter EEC Treaty], *as amended by* Single European Act, O.J. L 169/1 (1987). [1987] 2 C.M.L.R. 741 [hereinafter SEA]; *Id.* art 5, O.J. C 224/1, at 9 (1992), [1992] 1 C.M.L.R. at 591.

10. Commission of the European Communities, Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee, and the Committee of the Regions on the Implementation of the Telecommunications Regulatory Package, COM (97) 236 final, 14, 16 (May 1997).

The telecommunications market was fully opened to competition on 1 January 1998, the scheduled date; the start has been highly positive, and exceeded all our expectations. To date, around 170 licenses have been granted for fixed-line telephony and transmission lines; nearly 180 more are in the pipeline. And in the area that is not subject to license, there are currently some 1,000 telecommunications service providers operating. These figures show that companies are confident about liberalization, and that they rate the opportunity to generate profits on the newly deregulated markets very highly. Thus competition is now, only months after the launch of full competition, already intense. The licensee structure is heterogeneous. Licensees comprise city operators, regional suppliers, companies offering service in one or more states (*laender*), alongside various nationwide providers. Around 70 cities and municipalities have already set up their own telecommunications company, while another 50 are planning to do so.

All in all, the new entrants achieved call volumes of nearly 30 million minutes per day towards the end of the first six months of 1998. For the most part, this was due to the call-by-call procedure in which the customer dials a code to access their chosen operator, on an one-off basis. In the long-distance market the new entrants already have a share of nearly 12 percent of total daily call minutes as a result of this option. This success is also visible for the customer. Thus, compared to the end of last year before the voice telephony market was opened to competition, tariffs for long-distance calls at peak periods (9 a.m. - 12 midday) on weekdays have fallen for everyone (that is to say, when volume discounts are excluded).¹¹

II. REGULATORY FRAMEWORK PROVIDED BY THE TELECOMMUNICATIONS ACT

Accommodating constitutional and Community law, the Telecommunications Act puts in place the legal framework, specifically for the telecommunication sector, needed to liberalize the state monopolies previously held by an enterprise required to provide nationwide service. It was on January 1, 1998 that

11. Regulierungsbehörde für Telekommunikation und Post (Reg TP), Press Release 9 (July 15, 1998); *see also* German Regulatory Authority for Telecommunications & Posts (visited Oct. 18, 1999) <<http://www.regtp.de/English.htm>>.

competition, and thus regulatory normality, finally became possible. If, however, market forces were left to prevail, then the incumbents would hold all the trump cards.

Even after the withdrawal of its exclusive rights, Deutsche Telekom AG, the former monopolist, had virtually 100% of the market at the launch of competition. Another competitive advantage Deutsche Telekom AG has over its new rivals is that it is the only company in Germany that has a nationwide, state-of-the-art network serving almost forty million customers and nationwide facilities accessible over leased lines.¹² New entrants could easily be kept out of the market not only by discriminatory pricing but also by being denied interconnection with existing networks. And especially in the initial phase, new entrants rely on the shared use of facilities, particularly at local levels.

The Regulatory Authority for Telecommunications and Posts (or "Regulatory Authority") was established to address issues of telecommunications law deriving from the Telecommunications Act in particular.¹³ The regulatory role laid down by the TKG is not an end in itself: without licensing, without ex-ante regulation of interconnection charges, without state-guaranteed network access on fair terms and conditions, without the ex-post control of retail prices, without dispute settlement by the state, without frequency management and number management by the state; in short without the Regulatory Authority, there would not be efficient competition in the telecommunication market.

The Regulatory Authority's tasks are set forth in the Telecommunications Act. The aims of all its work can be subsumed under four main headings:

1. Given the incumbent's dominant position, a level playing field must be ensured.
2. There must be co-operation between rival providers in terms of technical standards and specifications, and such co-operation may not lead to discrimination of any kind.
3. The economic and technical framework must be adapted to the current, state-of-the-art conditions and must be

12. Details from the section-by-section analysis of the CDU/CSU, SPD and FDP of the draft Telecommunications Act, Bundestag printed paper 13/3609, 33.

13. Telecommunications Act, *supra* note 1, §66(1).

open-ended, so as to foster further technological advance.

4. An appropriate and adequate supply of telecommunications services must be guaranteed throughout the country, as part of Community service requirements.

Hence, the aim is not to constrain entrepreneurial freedom, but, on the contrary, to promote competition in the marketplace and to encourage technological and organizational progress. The creation of equal opportunity and efficient competition are also keys to achieving other goals, for it is competition that best serves users' interests, that allows technology to be advanced more rapidly, and that delivers basic services most cost-effectively and reliably in the long run.

III. *POWERS*

To enforce its aims, the Regulatory Authority has been equipped with effective procedures and instruments including information and investigative rights as well as a set of sanctions. Under Section 72 of the Telecommunications Act, the Regulatory Authority can request information from companies engaged in telecommunications, and inspect and audit their business records. For this purpose, it has access to business premises during normal business hours. It may undertake searches by local court order and take into custody objects and business records. Records not given voluntarily may be seized. A maximum administrative fine of DM1 million may be stipulated in order to enforce these orders or in the event of any violation against them.

IV. *DECISION-MAKING PROCESS*

Transparent, independent rulings are guaranteed first and foremost by Ruling Chambers proceedings. The Ruling Chambers are conciliation boards whose decisions are made, similar to the judicial system, by a chairman and two assessors. The Presidential Chamber is comprised of the President, as Chairman, and the two Vice-Presidents as assessors when ruling on licensing issues, the award of scarce frequency spectrum, and when requiring companies to provide universal service. Ruling Chamber Two's responsibility includes rate regulation for publicly available voice telephony and for transmission lines. Special control

of anti-competitive practices and ex-post rates regulation in the telecommunications marketplace has been assigned to Ruling Chamber Three. And Ruling Chamber Four decides on matters of special network access, including interconnection.

Proceedings are public; the companies directly involved take part. Persons, associations of persons, or representatives of business circles affected by the proceedings may be invited to attend. Basing proceedings on the judicial system and recognizing the validity of procedural principles guarantees objective rulings that are readily comprehensible to all parties.

Two administrative telecommunications departments complement the work of the Ruling Chambers. Department One, Telecommunications Regulation, is responsible for basic economic and legal issues, licenses, and for frequency management. Department Three, Technical Telecommunications Regulation, is responsible for technical matters in relation to frequency assignment, licensing, standardization, testing, and measurements.

The ruling that Regulatory Authority decisions cannot be quashed by the supervisory body, the Ministry of Economics and Technology, is particularly important for the independence of the Regulatory Authority. Action against Regulatory Authority rulings may only be brought directly before the administrative courts, whereby such appeals have no suspensory effect.¹⁴ This structure is especially important to the work of the Ruling Chambers on issues of rate regulation, ONP, and interconnection. Action by the regulator in these areas can only be effective when it is immediate and not delayed by protracted legal proceedings. Time is of the essence, particularly with respect to competition issues, a fact that has been taken into account by the lawmakers. A party affected by regulatory action seeking to gain time must apply for an administrative court order for suspensory effect, in accordance with Section 80(5) of the Rules of the Administrative Courts.

The Regulatory Authority is responsible for implementing laws and related ordinances. Directorate Seven at the Economics Ministry is responsible for telecommunications and the postal service, drafting proposals for new legislation, and the amendment of existing legislation. Directorate Seven also represents German interests in international bodies, including the EU. Par-

14. *Id.* § 80(2).

ticularly on matters of market definition and market dominance, the Regulatory Authority works closely with the Federal Cartel Office, as prescribed by §82 of the Telecommunications Act. Given the complexity of the issues, the two authorities may well hold divergent opinions. If the positions cannot be reconciled, even after an exchange of views has taken place, then the authority with the relevant decision-making powers under the law has the last word.

V. *FIELDS OF ACTIVITY*

There are four major fields of activity. These fields are market entry and licensing, universal service, rates regulation, and network access and interconnection. The following will outline for each of these four areas the regulator's tasks and responsibilities as derived from the legislation. Individual issues addressed this year will then be described.

A. *Market Entry and Licensing*

In principle, anyone may offer service in the telecommunications market. The barriers for new entrants are kept to a minimum by the Telecommunications Act. The subjective requirements for entrepreneurial activity in telecommunications are limited to what is absolutely necessary in recognition of the constitutional right of choice of occupation or profession. The provisions of the Telecommunications Act that address licensing awards, necessary under certain conditions before telecommunications services can be provided, but not present insurmountable barriers for a service provider. Requirements or special conditions associated with license award are only permitted in certain narrowly defined cases.¹⁵ Otherwise, the Telecommunications Act relies largely on the self-regulating ability of the markets; additional regulatory intervention in the market is envisaged as a general rule in relation to dominant companies only.

A license is needed for the provision of mobile communications services, satellite communications services, for the operation of other transmission paths, and for voice telephony provided on the basis of self-operated networks. This requirement means, for instance, that a company providing data or mul-

15. *Id.* § 8(2).

timedia services over leased lines does not require a license. In the areas where licenses are necessary, licenses are granted when the applicant can evidence sufficient reliability, efficiency, and specialized knowledge for their activity in the marketplace. Another safeguard is that public order and safety will not be endangered by the intended activity.

Competitive bidding and auctions are held solely for the radio spectrum, on account of it being a scarce resource. By December 1998, some 320 licenses had been granted for fixed-line voice telephony and transmission lines in the fixed network, while around 200 were being processed. These figures show that companies are confident about liberalization and that they rate the chance of success highly. Competition in the newly deregulated markets has achieved a pleasing level of intensity.

1. Additional Notes and Examples

In mobile communications, a decision is pending on the award of spectrum still available in the 1800 MHz band for applications based on the GSM 1800 standard. Bids for frequency assignment have been received from the two operators, D1 and D2. Under the provisions of the Telecommunications Act, a decision on such award requires a prediction of the impact on the relevant market and hence on the operators in this market, that is to say D1, D2, E1, and E2.

The two operators, E1 and E2, were given a considerably larger amount of spectrum than D1 and D2 (22.5 MHz/ 12.5 MHz) when the E2 license was granted in spring 1997 on account of the prevailing competitive situation. That decision was based on extensive competitive and technical studies and investigations. These analyses are now being looked at with a view to determining the extent to which the competitive conditions have since changed.

When the review is completed, the Regulatory Authority will decide on the award. The legitimate interests of the parties will be taken into account, particularly in view of future development potential. The main criterion for the decision will be ensuring equal opportunity and thus efficient competition. The key elements on the spectrum award for mobile applications based on the GSM standard, were introduced to interested circles by way of a public hearing as provided for by Section 11(1) of the Tele-

communications Act and invited comments.¹⁶

Requiring the regulator's special attention are the new technologies underpinning UMTS ("Universal Mobile Telecommunications System"), Wireless Local Loop, global satellite communications networks, and broadband Integrated Service Digital Network ("ISDN"). By following the principles of openness, transparency, interoperability, and security, standardization in these areas aims to avoid discrimination between providers. Meanwhile, there is agreement at ETSI on the air interface. From the regulator's point of view, this agreement is greatly welcome in the interests of rapidly bringing efficient, innovative technologies to market. More assignments can be expected shortly, following the first frequency assignments in 1997—limited in the first instance to one year—for companies operating local experimental UMTS networks.

The course will also have to be charted for the introduction in 2002 of commercial UMTS service. It is hoped that this innovative technology, a facilitator primarily of multimedia applications, will quickly repeat the success of the GSM standard. If it does, then it will demonstrate for the interested public how rapid, far-sighted regulatory measures can encourage innovation and create new, competitive markets.

Spectrum assignment for Digital Audio Broadcasting ("DAB") is also on the agenda. A decision was taken in mid-August on the award procedure, the result of extensive public consultation on the contract documents and a poll of the *länder* on the timescale and regional zones. The green light for applications submission was then given in late August. In straightforward cases of single applications, the first licenses were scheduled for award in late October.

Digitization, moreover, impacts on all license applications. It allows vastly more channels in existing frequency bands, so that arrangements will be required to give program providers balanced, non-discriminatory access.

B. *Universal Service*

The Regulatory Authority's job in universal service is to ensure the provision of a minimum set of telecommunications serv-

16. Official Gazette No. 25/1998 of December 23, 1998.

ices. These services have a specified quality and must be available to all users, independent of where they work or live, at an affordable price. At present, they comprise ISDN, voice telephony, directory information, provision of telephone directories, public telephones with emergency calling facilities, and a set of leased lines.

It is assumed as a general rule that, in competitive markets, the above will be provided anyway. Hence the regulator need only intervene if gaps in supply are identified. Such intervention could either be through the regulator obliging the dominant company to provide the service, or by inviting bids for its provision. The company requesting the least financial compensation for doing so, or the dominant company would then be required to provide the service. Any deficit incurred by the provider would then be offset by means of a levy from all licensees with a share of more than four percent of the relevant market.

Given the satisfactory supply situation at present, no one is currently obliged to provide universal services. The sole requirement in this connection is that Deutsche Telekom AG notify the regulator one year in advance of any changes in the conditions under which it currently provides universal services voluntarily.

1. Additional Notes and Examples

In this connection, the regulator will have to monitor what the local authorities charge for public telephone locations. A consensus between the telephone companies and the local authorities should be envisioned in which the latter did not raise any charges for low-use sites, with a view to safeguarding the infrastructure. Fees from lucrative locations should be used to cofinance such low-use sites, although the fees charged should only be moderate. This method is the only way to prevent the network of public telephones from being thinned out too greatly.

To this end, standard agreements have been drafted between Deutsche Telekom AG and leading local authority associations for use when contracts are negotiated between Deutsche Telekom AG and local or regional authorities about the operation of public phones in public places or municipal properties. The first contract of this kind has been signed by Deutsche Telekom AG and the city of Cologne.

C. Rates Regulation

Rates proposed by dominant companies for transmission lines and voice telephony must be approved by the Regulatory Authority before they can take effect. The rationale is to prevent a dominant company from disadvantaging its customers by virtue of its position of strength. One such disadvantage would be if the company asked for excessively high prices in areas where it was not exposed to significant competition. Additionally, a dominant company should not be able to restrict its competitors' opportunities on account of its position. Such a restriction would exist, for example, if it were able to drive competitors out of the market by a policy of unjustified predatory pricing.

The following areas are subject to rates regulation:

- The voice telephony service and leased lines of dominant companies, i.e., Deutsche Telekom AG's former monopolies, are regulated on an ex-ante basis, that is to say, prices apply only after approval by the Regulatory Authority. This regulation also applies to services directly related to the provision of voice telephony, such as preselection, the choice of another carrier on an enduring basis.
- For dominant companies, ex-ante rate regulation is also incorporated in the legislation on interconnection and special access on account of the great importance of these issues for the development of efficient competition.
- The other areas are subject to ex-post control of anti-competitive practices. This control enables the Regulatory Authority to scrutinize prices after their introduction for any anti-competitive practices such as predatory pricing or discriminatory behavior. The rates regulation regime is intended to take account of the pace of development in the market. Accordingly, decisions on approval must be taken as quickly as possible. The Regulatory Authority's Ruling Chambers are required by the Telecommunications Act to make their decisions within a ten-week period.

The principles and procedures of rates regulation are set forth in Sections 24 to 31 of the Telecommunications Act. Particularly important is Section 24(1) of the Telecommunications Act, which states that rates shall be based on the costs of "efficient service provision." Under subsection two, rates may not

contain any mark-ups or discounts, and may not discriminate for or against individual users, unless there is an objectively justifiable reason for doing so. These points will be dealt with in greater detail later.

Approving rates on the basis of the cost of efficient service provision for the given service is the normal practice, for the time being at least. It means that the rates for each service must be approved individually. Price cap rulings, whereby several services are grouped in baskets and regulatory targets, set solely for the average rates of change in the price of these services, currently apply to specific retail prices only.

Under Section two of the Telecommunications Rates Regulation Ordinance of October 1, 1996 ("Ordinance" or "TEntgV"),¹⁷ the filing companies are required to submit extensive cost statements.¹⁸ Filings may be rejected on account of insufficient documentation, as stated in Section 2(3) of the Ordinance. Otherwise, the Regulatory Authority must examine the documentation to establish whether the rates are based on the costs of efficient service provisions. According to Section three of the Ordinance, these are the long run incremental costs of providing the service plus an appropriate amount for volume-neutral common costs, both inclusive of an appropriate return on capital employed, to the extent that these costs are required to provide the offering.

In this examination, the Regulatory Authority must also refer to the prices and costs of comparable competitive markets. This reference is specified in Section 3(3) of the Ordinance. The difficulties of such international comparisons are well known, but the idea of using international markets for purposes of comparison is not new in telecommunications. On the contrary, it has its origins in general competition law and has proved

17. Telecommunications Rates Regulation Ordinance (TEntgV), v. 1.10.1996 (BGBl. I S.1492(ff)).

18. The statements address the individual costs falling to the given service, and the common costs allocated on the basis of fixed criteria. These costs must be broken down into payroll costs, costs in relation to materials, depreciation and cost of capital, all reflecting the cost of the individual factors employed to provide the service as well as the relevant prices. Capacity utilization must also be shown. Also required are the service specifications, general terms and conditions, revenues generated, quantities sold and contribution margins. The financial impact of the proposed rates on customers and suppliers must be depicted. The period to be covered by the statements is the five years previous to the filing and estimates for the four years thereafter.

a successful mechanism for the Federal Cartel Office for many years now. It serves to develop a benchmark for a service for which there is no competitively determined price. The use of such a benchmark in specific regulatory rulings is intended mainly to make products/services and applicable markets comparable. A comparison of services must look at criteria such as technical equipment, quality, and the type and extent of service. Relevant to a comparison of markets is geographical position, size of the market, competitive situation, purchasing power of the population, and regulatory and legislative factors. It will hardly be possible of course to compare individual services and markets in all aspects. All the same, we are concerned not to take an arbitrary approach. Hence it makes sense, and is necessary, to incorporate many services and markets, i.e., countries, in our comparisons. Such aggregation can then offset specific national features, and also enable Germany to benefit from the experience of other countries. Last, stated costs exceeding the costs of efficient service provision are only taken into account if they derive from a legal requirement or if there is another proven objective justification for them.

It was decided in late 1997 that Deutsche Telekom AG should lower its retail prices for fixed telephony on average by a minimum of a 4.3% price cap. This ruling was made prior to the Telecommunications Act and is binding on the Regulatory Authority. The target of an average 4.3% cut stems from an assumed productivity gain of six percent less an inflation rate of 1.7%. Therefore, in January 1998 the Regulatory Authority only had to establish whether Telekom's price cut effective March 1, 1998 would be within the target. The examination showed that this was the case and that the reduction was even slightly higher than the target set. Approval was therefore given.

Yet much more crucial than an imposed ruling will be—and is already, in many segments—the pressure put on prices as a result of the ever greater span of competition. This pressure is not a legislative flaw, but a development fully in line with our philosophy of market liberalization. Thus, it is indeed worthy asking whether Deutsche Telekom AG is well advised to limit its price reduction to just over the required minimum. This is not, however, a question for the Regulatory Authority but one which the workings of the market will answer.

1. Additional Notes and Examples

Not subject to voice telephony regulation is Internet telephony. Its packet-based transmission of data means that real-time transmission of voice, as provided by voice telephony, cannot be assured. It would seem somewhat doubtful whether the advantages of this cost structure, as compared with those of the traditional providers, can be maintained in the medium and long term. In the long run, the prospects for Internet telephony lie in its better potential for integrating different communications services. Envisaged is the integration of videoconferencing, mailboxes, pagers, fax, and e-mail, and the goal is to incorporate telephony in the existing information services offered on the World Wide Web. In other words, today's price advantage will be tomorrow's qualitative edge.

D. Rulings on Rates Proposals

The first rulings in 1997 under the rates regulation regime addressed interconnection charges. The orders issued focused on the level of interconnection charges payable to Deutsche Telekom AG. The relevant decisions were made on September 12 and October 2, 1997 by the former Ministry of Posts and Telecommunications (or "Ministry"). In its rulings on the fees, the Ministry proceeded with great caution. The lack of detailed Telekom cost statements made an international comparison necessary. The countries chosen for the comparison were ones with similar economic and social systems to those of the Federal Republic and with deregulated telecommunications markets, specifically the United Kingdom, Sweden, France, the Netherlands, Denmark, Spain, Australia, Japan, Finland, and the United States. The inclusion of ten countries provided a broad basis ensuring that the special features of the German telecommunications market and the situation of Deutsche Telekom AG as a company exposed to wide-ranging competition for the first time after decades of monopoly operation would be taken into proper account. A smaller scale comparison of, say, the three best-practice countries was therefore passed over. A corridor ranging from 1.8 Pf/min (average of the top three countries: United States, United Kingdom, and France) and 3.49 Pf/min (average of all ten countries contemplated) was established from which an average was then derived and rounded up to 2.7 Pf/

min. This amount represents 79.12% of the price level requested by Deutsche Telekom AG as the respondent, without the access deficit charge being taken into account. The German prices are within the Commission's recommended range of interconnection charges, albeit at the upper end. The European Union intends to revise its recommendation downwards in 1999. This revision means that some of the German prices will then exceed the proposed ceilings, necessitating a fresh review of the charges.

Deutsche Telekom AG's preselection charges (choice of carrier on an enduring basis) and their coverage in the press caused customers considerable confusion in early 1998. The relevant Ruling Chamber pointed out in a communication to Deutsche Telekom AG that no fees were to be charged for preselection or number porting ahead of approval. Deutsche Telekom AG was nevertheless required to provide the service. After Telekom had withdrawn its initial rates proposal, the Ruling Chamber on June 15, 1998 gave partial approval to the preselection fees filed by Telekom in a fresh proposal. Starting from the applicable amount of DM27 in 1998, there was to be a two-stage reduction at year's end. It will be down to the target price of DM10 as of January 1, 2000. Given the considerable doubt about Telekom's efficiency in providing the service, this amount was fixed based on cost studies and prices in comparable markets in the United States, Canada, Australia, and New Zealand. In April, the Ruling Chamber had already decided that porting, required when a customer switches fully to another operator and keeps their number, must remain free of charge for the user.

On account of widespread complaints about the fifteen percent increase in broadband cable prices introduced by Deutsche Telekom AG in November 1997, the Regulatory Authority ordered formal proceedings into the abuse of a dominant position. These did not give rise, however, to any objection to the price increase before the end of 1998. Yet they did show that Telekom needed to improve its efficiency in this area considerably. The Ruling Chamber established that the costs it had approved should be reduced by seven percent by year's end. Deutsche Telekom AG was therefore ordered to cut its price increase by a minimum of sixty-four percent by January 1, 1999. It was informed that this order would be enforced by means of a prohibition order, if necessary. Yet the Regulatory Authority did indi-

cate that the case could come up for review in early 1999, should new facts become available in the meantime.

In respect to various other rates, complaints about anticompetitive practices by Deutsche Telekom AG have been and are still being received. For instance, Telekom has been ordered to grant its competitors access to its in-house cabling facilities in line with their actual requirements. Preliminary investigations are still underway concerning complaints from several program providers about Telekom's increased charges for feeding programs into its broadband cable network.

E. Network Access and Interconnection

To ensure that new entrants have the same opportunities as incumbent operators, dominant companies are required by law to give competitors access to their networks. Additionally, they must provide access to all the essential facilities they use internally and supply in the marketplace, on a basis of non-discrimination, and on the same terms and conditions as they apply to themselves when using these facilities. And they must provide the offer in such a way that competitors are not required to take any services they do not want.

Also vital to the success of any competitive telecommunications market is that each subscriber can reach any other subscriber in a public telecommunications network. Every operator, irrespective of its market power, is therefore obliged to negotiate interconnection arrangements with other operators. If these private negotiations fail, the regulator then steps in to order interconnection, stipulating solutions to disputed points concerning the extent of service and fees payable.

In this connection a ruling was made in 1997, before the market was fully opened, fixing an average connection charge of 2.7 Pf/min. Along with the ruling granting new entrants unbundled access to the Telekom local loop it helped to create a timely, clear, and predictable environment for competition. This situation set the stage for the rates Telekom charges its competitors for access to the local loop to be examined based on the cost statements submitted. Telekom's first filing was rejected by the Ruling Chamber on March 9, 1998 on the grounds of incompleteness and poor verifiability. A provisional fee of

DM20.65 was mandated for the basic variant, the straightforward copper pair without any switching.

This temporary order marked an important step in Germany for competition at the local level. Even by international standards, a high degree of market opening was thereby achieved. In its renewed filing of September 21, 1998, Deutsche Telekom AG requested a fee of DM47.26. This filing is based on a greatly modified, more detailed cost accounting system. Before reaching a final decision, we will deal with this issue exhaustively.

Thirty interconnection agreements, effective at the beginning of the year, have been concluded between Deutsche Telekom AG and its competitors and provisionally approved by the regulator. Telekom is currently negotiating with some seventy other companies on interconnection arrangements. Not yet definitively settled is the matter of exactly what technical requirements an interconnection partner's network should meet and the number and geographical distribution of the points of interconnection. Despite these problems, Telekom has agreed to continue negotiations with these companies and to resolve disputes by way of conciliation procedures.

Also in this connection, the Regulatory Authority has had a general model drawn up by the Scientific Institute for Communication Services ("WIK") for pricing the local network. The model's assumptions and calculation methods were discussed with all interested operators in a public consultation. A software version of the model was made available at year's end. The model has been extended to the long-distance network, providing a benchmark with which to assess the costs of various essential facilities.

International experience has shown that rigorous but fair cost benchmarks can markedly lower interconnection charge levels and give telecommunications companies the sound basis they need for investment planning.

F. Assessment of the Competitive Situation Today

After a 125-year monopoly, it would be an illusion to believe that the transition to competition would be perfectly smooth. All concerned, including Deutsche Telekom AG, made enormous efforts to make competition possible on January 1, 1998.

And the German regulator intervened rapidly, effectively, and in an entirely consistent manner against attempts to make the move to new providers unattractive on account of high switching fees. Yet the area where competition is currently fiercest is not affected by the switching fees at all: since the beginning of 1998, every telephone customer in Germany can opt for whichever provider they wish, free of charge, simply by dialing the appropriate carrier code.

Thus, overall, the first year of liberalization can be assessed entirely favorably. Admittedly, not all the offers we anticipated have actually materialized. But companies are now vying for the attentions of residential customers, too, in the long-distance market. A notable contributory factor to this development has been the systematic regulation of interconnection charges. Smaller providers with, initially, only few facilities of their own have rapidly carved out a niche for themselves in fixed-line telephony. Encouraged by this success, many are now expanding their network. Thus to date, the regulator has successfully countered the threat of a few major suppliers operating across the country at a high cost to the customer.

Price competition will continue to drive the expansion of the infrastructure, innovation, and technological advance. But the customer is also being wooed with the arguments of quality and the availability of innovative services. The mobile picturephone is just one outstanding example from a host of others.

Concern has been publicly voiced that the regulator's rulings could lead to a reluctance to invest in network infrastructure and to a lack of innovation as a result of relatively low price levels for interconnection. Nothing more than price competition had been launched. Investing in new network technologies would not be worthwhile, and the incentive for research and new technological development was inadequate. This reluctance would inevitably result in job losses. At this point it must be stated explicitly that we are not interested in ruinous price competition either. From what we see so far, however, there has been fierce, but not ruinous, price competition. Price and innovation competition are not incompatible; in an environment of healthy price competition, players need innovation in order to lower their costs. They also need innovation to be able to tap new markets and to stand out favorably against their rivals. Nev-

ertheless, the Telecommunications Act does give us the possibility of responding to new developments and of ruling out or eliminating undesirable effects. And here we take our role as regulator very seriously indeed. The fact that we have taken up the issue of "switchless operators" and made it the subject of a public hearing clearly illustrates this. As you know, we consider the matter of facilities-based competition and whether we need to adjust and introduce variable interconnection charges to be of central importance. But we should also like to make clear that excessively high charges for interconnection and renting the local loop cannot be in Telekom's interests either. It would then soon be faced with rivals undercutting its prices for interconnection service at the long-distance level, and it would also lose access to some, at least, of its end users.

VI. *TELECOMMUNICATIONS LIBERALIZATION: BENEFITS FOR THE CUSTOMER*

As we have said, since the beginning of 1998, every telephone customer in Germany can choose, free of charge, the provider they wish to handle their call simply by dialing the relevant code. There are currently some fifty telephone companies offering this service. The fierce price competition, at long-distance level in particular, has already paid dividends for the customer. In some areas, prices have fallen by sixty percent and there is no indication of this downward trend ending. For example, the average price per minute for long-distance calls in May 1998, weekdays, during business hours, was between 56 and 20 Pf, depending on the provider, and between 27 and 10 Pf in the evenings and at weekends.

Contrary to expectations prior to the launch of competition, these price reductions are by no means for the benefit of business customers alone. To a large extent, it is the residential and small business customers, a suitable target group for the call-by-call option, whose changed telephony habits are underpinning the success of the new entrants. Many a new company's business plan has had to be completely overhauled in the light of this.

There have also been substantial improvements in consumers' rights vis-à-vis telecommunications service providers. For instance, the Telecommunications Customer Protection Ord-

nance ("TKV") of December 11, 1997,¹⁹ entitles consumers under Section 14 to an itemized bill and under Section 15 to a single bill, which also incorporates the services of other providers used, from the access network operator. In the case of objections to the bill, the onus of proof is now on the operator, and no longer the customer (cf. Section 16). Barring is only possible when the customer defaults on the payment of a minimum of DM150 (cf. Section 19). And customers may refer disputes with their provider to the regulator for settlement (cf. Section 35).

As expected, medium-sized and large companies are now offered a raft of customized services to meet their own specific requirements, leading in turn to substantial cost savings and service enhancements. In many cases, these reduced costs are opening up entirely new fields of business, for instance in distance learning, or facilitating better service, say, through the establishment of call centers.

Summing up then, it is true to say that innovative products and services are being made available to all groups of customers at a considerably more rapid pace than before the advent of liberalization.

VII. *TELECOMMUNICATIONS LIBERALIZATION: BENEFITS FOR COMPANIES WITHIN THE INDUSTRY*

In a monopoly artificially protected from the rigors of the world market, with no incentive for innovation, where efficiency gains are not an imperative, and with no pressure on prices, telecommunications—just like the national coal industry and the shipbuilding industry in the past—would degenerate into a subsidy-dependent sector, devoid of prospects.

But instead, liberalization has created an entirely new economic sector in Germany: the telecommunications industry. It has spurred the fledgling companies that have enjoyed remarkable success right from the beginning. Even if one or the other business strategy will fail, we then may nevertheless assume that the new entrants overall will post a disproportionately large share of the market in the next few years and that many of their investments—some of which are substantial—will prove profitable.

19. Telecommunications Customer Protection Ordinance (TKV), 11.12.1997 (BGBl. I S.2910).

Deutsche Telekom AG, the incumbent, is also benefiting considerably from the larger market. Competition is encouraging it to streamline its operations and allowing it to set a fast pace of innovation, financed by private capital. This process is enabling it as one of the major global carriers to play its proper part in globalization and in the evolution of the information society. To do so, it must focus on five core tasks: a clear strategic reliance on its core competencies, a radical restructuring of personnel and operations, reducing its network infrastructure costs, greater product innovation, and greater applications of diversity along with a prudent internationalization of its business.

VIII. *TELECOMMUNICATIONS LIBERALIZATION: BENEFITS FOR GERMANY AS A PLACE TO DO BUSINESS*

The lower cost of communications today, driven down by competition, and the availability of high quality and even wholly new kinds of service are boosting competitiveness and employment prospects in other branches, too. Telecommuting is being introduced and medium size and large companies are consolidating their distribution and after sales service in so-called call centers. Call centers alone are expected to provide 140,000 new jobs by the year 2000. This dynamic development is spreading far beyond the telecommunications sector. It is eminently important in terms of Germany's suitability as a place to do business and hence for the development and future of the German economy generally.

Only in a competitive environment can the potential of communications and information technology unfold in the manner required by economic and social policy generally.

CONCLUSION

The first year of liberalization can thus be assessed entirely positively. All concerned, Telekom too, did their utmost to get competition up and running for the 1998 deadline. The fierce price competition is spurring new technology, for instance in the field of least-cost-routing. Yet price, particularly in the long term, will not be the sole measure of competition. Customer-friendliness, quality, and the availability of innovative services will become increasingly important factors.

The Regulatory Authority for Telecommunications and

Posts seeks to ensure easy access to the German market and a level playing field for all, based on regulation that is independent and quick to intervene against any abuse of market power, in other words to ensure a sound and predictable investment climate. Our regulation aims to promote competition in the telecommunications sector and to encourage technological and organizational progress at the same time.

This policy stands to benefit all: customers, Deutsche Telekom AG, new entrants, the workforce, Germany as a place to do business, and the prospects of the German economy generally. The World Trade Organization estimates that a quarter of all economic activity in the industrial countries will be accounted for in the future by electronic commerce. Germany is preparing itself for these global challenges and has already made a promising start. The excellent outlook on the communications and information technology markets is one of the main reasons why the economic situation in Germany has markedly improved in recent months. The 3.8% growth rate in real terms in the first quarter of 1998 was the highest rate of growth in Germany since 1991.