Decision of the Commission of the Independent Post and Telecommunications Authority on the extent to which the tariffs proposed by KPN for voice telephony are cost oriented

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Passages containing Information designated as confidential business information by KPN Telecom have been left out of this public version. The Commission will examine further whether the passages concerned must actually be considered as business secrets. If necessary, an adjusted version of the public decision will be published at a later date.

1. Introduction

Pursuant to section 5.2 of the General Telecommunications Guidelines Decree (hereinafter: BART), KPN Telecom is obliged to set cost oriented tariffs for the voice telephony service. Cost oriented entails that the tariffs must be reasonably proportional to the underlying costs, including profit mark-up. The Commission is presently assessing whether KPN's tariffs are actually cost oriented. The assessment is being made partly on the basis of the survey of costs and income presented by KPN Telecom on 1 May 1998 which were allocated in 1997 to the various components of the voice telephony service. KPN indicated thereby in broad terms its opinion on what the result ought to be for the tariffs in view of the figures presented. In so far as the Commission finds that certain tariffs are not sufficiently cost oriented, these must be adjusted by KPN Telecom. Should KPN Telecom be unprepared, or not sufficiently prepared to do this, the Commission will give KPN Telecom binding instructions.

The interests of various parties (for example users, other telephony providers and KPN Telecom) played a role in the assessment of the tariffs. Users will not want to pay too much for the telephone service and therefore low tariffs are to their advantage. Other telephony providers on the other hand have an interest in not having the tariffs too low. It would otherwise be difficult for them to compete with KPN Telecom. KPN Telecom is mainly interested in achieving a reasonable rate of return on its capital investment. This is necessary to guarantee the continuity of the investments and the enterprise. Therefore, it is important for KPN Telecom as well that the tariffs are not too low. Too high is not attractive either, because this would put pressure on their own competitive position. The rest of this document will indicate how the OPTA Commission has weighed the interests of the various parties in making the assessment.

In anticipation of the final decision by the Commission, KPN Telecom made an interim adjustment of the tariffs on 1 July 1998, whereby the monthly rental was raised and the call charges were lowered (the so-called 're-balancing'). The tariff changes were based on the position taken that the fixed costs (i.e. traffic-independent costs) of the local loop will subsequently be passed on in the monthly

rental and no longer partly in the call charges. The Commission did not protest these tariff changes because it considers them to be the first step towards the creation of fully cost oriented tariffs. The Commission made this known in a publication in the Government Gazette (*Staatscourant*) (see Government Gazette 1998, no. 90). The Commission did, however, note that on a number of issues such as the interpretation of the term 'reasonable rate of return', the positioning of ISDN and the discount arrangements offered by KPN Telecom, a definite position can only be taken after assessment of the extent to which the tariffs are cost oriented.

The time has now come for this assessment. Below you will find the decision of the OPTA Commission on the cost orientation of the telephone tariffs. In arriving at the decision, the Commission consulted the Netherlands Competition Authority, in particular on the applicability of the term 'reasonable rate of return' to the telephone tariffs of KPN Telecom. The present decision is in itself not intended to have legal consequences. KPN Telecom will first be given the opportunity to make a proposal for adjustment of the tariffs which, in the Commission's opinion, are not sufficiently cost oriented. Following this, the Commission will take a decision meant to have legal consequences, against which objection and appeal will be open to those with a direct interest. This decision may either entail agreement with the tariffs proposed by KPN, or binding instructions. A combination of both is also possible.

This document is organized as follows:
In Part 2, the statutory framework is outlined against which the assessment of the tariffs took place.
Part 3 contains a description of the procedure followed during the assessment.
Part 4 deals with the consultations held by the OPTA Commission held prior to the assessment.
In Part 5, Board's the views on the manner in which the tariffs should be assessed are discussed.
Part 6 gives an explanation of the market forces operating in the various market sectors.
Part 7 contains an itemized survey of the tariffs to be assessed.
Part 8 centres on the question of how a reasonable rate of return should be determined.
In Part 9, a number of issues are discussed that relate to cost oriented tariffs, such as the discount arrangements and ISDN.
Chapter 10 contains the decision of the OPTA Commission on the cost orientation of the tariffs for the different components of the telephone service.
In conclusion, in Part 11, the future tariff regulation is dealt with which will in principle be based on a price cap system.

2. Statutory framework

At the end of the eighties, the European Union started the formation of a common telecommunications market. This was to be achieved through, on the one hand, liberalization of the telecommunications sector and, on the other hand, harmonization of the conditions of use and access for telecommunications networks and services. The sector has been gradually liberalized with 1 January 1998 as the provisional end date. On that date, the Member States were to have lifted all legal obstacles to the provision of telecommunications networks and services. In striving towards a common market for telecommunications services, the conditions of use and access for telecommunications networks and services were also harmonized. The basis for this consisted of the so-called conditions for Open Network Provision (ONP). The basic principles of ONP are contained in the ONP Framework Directive [1]. The cost orientation principle plays an important part in this.

A separate ONP Directive was laid down at the end of 1995 for voice telephony [2]. It stipulates that the national regulatory authorities must ensure that the tariffs for the use of voice telephony services are transparent and cost oriented. This provision has been implemented in Netherlands legislation by an amendment to the BART [3]. The provisions dealing with the need for KPN's telephone tariffs to be cost oriented are included in Section 5.2 of the BART.

The ONP Voice Telephony Directive has meanwhile been replaced by a new Directive [4]. The new Directive is aimed at the application of ONP to voice telephony in an increasingly competitive environment. With respect to the use of cost oriented tariffs, not much has changed. Telephone tariffs still have to be cost oriented, at least as far as telephony providers are concerned with significant power on the market. In the draft of the subordinate legislation for the proposed Telecommunications Act, it has been determined that providers with significant power on the market are obliged to set cost oriented tariffs. In the transitional provisions of the proposed Telecommunications Act, it is stipulated that for the first two years, KPN Telecom will be designated as a provider with significant power on the market.

With respect to discounts, the new ONP Voice Telephony Directive will indeed entail changes. This will be discussed further in Part 9.

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[1] Council Directive 90/387/EEC of 28 June 1990, no. L 192. This Directive was subsequently amended by Directive 97/51/EC to be able to function in a competitive environment.

[2] European Parliament and Council Directive 95/62/EC of 13 December 1995, no. L 321.

[3] Amendment to the General Telecommunications Guidelines Decree (*Besluit algemene richtlijnen telecommunicatie*) of 30 June 1997, Official Gazette 1997, no. 125.

[4] European Parliament and Council Directive 98/10/EC of 26 February 1998, no. L 101.

3. The procedure followed

Under the BART, KPN Telecom is obliged to set cost oriented tariffs for the voice telephone service. The Commission must judge whether KPN Telecom has actually done so. A procedure for this is included in Section 5.2 of the BART. In short, the procedure comes down to the following:

- KPN Telecom shall set up a system for the allocation of costs and income to the voice telephony service;
- The system must comply with the provisions of the ONP Directive for voice telephony (95/62/EC);
- The system must be presented to the OPTA Commission for approval before 1 October 1997;
- Following approval by the OPTA Commission, KPN Telecom must apply the system and submit its results, being a survey of costs and income, to the OPTA Commission on 1 May 1998;
- KPN Telecom must add two documents to the survey: a) a report from the external auditor of KPN showing that the survey was based on application of the system approved by the OPTA Commission and b) a schedule of consequences in which KPN states what in its opinion should be the consequences of the tariffs.
- The Commission will then assess whether the tariffs are sufficiently cost oriented. If the Commission finds that the tariffs are not (or will not be) sufficiently cost oriented, and KPN Telecom is not prepared to adjust the tariffs in accordance with the decision, the Commission will give binding instructions.

Most of the steps in this procedure have already been completed. On 17 April 1998, the OPTA Commission approved the cost allocation system drawn up by KPN for voice telephony (Official Gazette (*Staatscourant*) no. 77). Thereby, among other things, the Commission determined that the system complies with the provisions of Directive 95/62 EEC. On 1 May 1998, KPN presented the Commission with a survey of the costs and income allocated to the various components of the voice telephony system over the 1997 financial year. The external auditor of KPN Telecom, Coopers & Lybrand, had ensured that the survey was based on application of this system. The auditor submitted a certificate to this effect to the Commission. The Commission instructed the accountancy office Arthur Andersen to examine the auditing activities carried out by Coopers & Lybrand. The examination by Arthur Anderson did not discover any deviations from proper accountancy procedure by Coopers & Lybrand. Nor did it appear that the auditing activities could not form a sound basis for the auditor's report submitted by Coopers & Lybrand. Furthermore, together with the survey of costs and income presented by KPN Telecom on 1 May 1998, KPN enclosed a schedule of consequences in which it indicated what, in its opinion, the starting points should be for determining cost oriented tariffs.

It is now time for the next-to-last step in the procedure: assessment by the Commission of the extent to which the tariffs are cost oriented. Before proceeding with this, the Commission will discuss the consultations held by OPTA at the beginning of this year on the concrete interpretation of the term cost orientation for the telephone service.

4. Consultations

On 25 February 1998, the Commission published a consultation document outlining the method by which the Commission intends to assess the cost orientation of the telephone tariffs. Interested parties were asked to give their views on the matter. This could be done either in writing or verbally at the hearing on 1 April 1998. A total of nine interested parties made use of the opportunity to make their views known. Appendix 1 contains a summary of the reactions. The Commission's reactions and its definite position on the various subjects are also included. This appendix will be published on OPTA's web site.

For subjects on which a definite standpoint has been taken that deviates from the provisional standpoint, further on in this document the Commission gives more details on the considerations playing a part in this. For the rest, the Commission refers to the consultation document itself and to Appendix 1.

5. Assessment method

5.1 Introduction

In this part, the Commission discusses how the term cost orientation was actually interpreted in assessing the tariffs. The following matters will be dealt with:

- the definition of cost orientation;
- the connection between cost orientation and competition;
- the level on which the Commission assesses the cost orientation of the tariffs;
- the necessary weighing of the different interest that play a part in determining cost oriented tariffs.

5.2 Definition of cost orientation

"Cost orientation" is generally understood to mean that tariffs must reflect the underlying costs including a reasonable profit margin. The reasonableness of the profit margin is assessed in the light of the capital employed in order to perform a certain activity. On this issue, the ONP Framework Directive (see footnote 1) stipulates that in determining cost oriented tariffs, account must be taken with the need for a reasonable rate of return on investments made (see Appendix 1 of the Directive).

In order to set cost oriented tariffs, the underlying costs must first be determined. These have meanwhile been determined by applying the cost allocation system approved by OPTA for costs and income. The costs must now be translated into tariffs. The decisive factor is what can be considered a reasonable rate of return on invested capital. Therefore, the Commission will discuss this subject in greater detail further on in this document (Part 8).

5.3 Cost orientation and competition

As already stated in Part 2, the ONP conditions must comply with several basic principles included in the ONP Framework Directive. One of these basis principles is that the conditions must be based on objective criteria (see Article 3, first paragraph). In Annex 1 to the Directive, this rule has been worked out for the tariffs. The following is stipulated: "*tariffs must be based on objective criteria and until such time as competition becomes effective in keeping down prices for users, must in principle be cost oriented, on the understanding that the fixing of the actual tariff level will continue to be the province of national legislation and is not the subject of open network provision conditions.*" From this it can be concluded that cost orientation must be considered as a temporary substitute for actual competition. As long as competition has not yet become effective, cost orientation must ensure that the users do not have to pay too high tariffs. This means: not too high compared to tariffs that would have been established in a situation of adequate market forces.

In general, it is assumed that in a fully competitive environment, tariffs would be fixed on a more or less cost oriented level. The idea is that competition will ensure that a company cannot keep its prices permanently above such a level. If a company does so anyway, it will lose customers and

eventually be forced to lower its tariffs. In principle, this means that in a fully competitive environment, monitoring the tariffs to ensure that they are not too high will no longer be necessary. This is also underlined in the passage cited above from the ONP Framework Directive: tariff regulation is considered necessary until competition becomes so effective that it exercises enough pressure to keep the tariffs paid by the users from becoming too high. At the same time, it is also true that with full competition, monitoring of tariffs that are too low will not or no longer be necessary. If none of the market players has a dominant economic position, there can be no question of any abuse of such a position within the meaning of the general competition rules.

The OPTA Commission is of the opinion that the extent of actual competition on the markets in question should play an important part in assessing the cost orientation of the telephone tariffs. The more competition there is, the less the need will exist to regulate tariffs strictly in accordance with cost orientation principles. This mainly concerns the actual competition on a certain market sector rather than the potential competition. After all, even if there were no legal restrictions on providing certain services, the structure of a market (sector) or the conduct of market players in the relevant market (sector) could be such that, for the time being, there would be no effective competition. In this regard, the Commission comments that the extent of the de facto competition is not in itself a statistical datum, but may change in the course of time. An evaluation of the situation in a market (sector) is always a random indication. The need for strict regulation of the tariffs on a cost oriented basis will always depend on the actual development of competition in a market sector. The Commission will return to this subject further on in this part.

5.4 The assessment level

5.4.1 General

In the consultation document, the Commission proposed assessing the cost orientation of the following services:

- the 'access' service (which provides access to the PTT network and to which the monthly rental applies);
- local calls (so-called calls 'within the basic zone');
- national calls (so-called calls 'outside the basic zone');
- international calls (for each destination);
- fixed-to-mobile calls;
- 0800/090x calls;
- pay telephones;
- ISDN.

It has also been proposed not to assess the cost orientation of lower level tariffs, i.e. also assessing the cost orientation of the peak/off-peak structure or the flagfall charge.

Most of the market players who reacted to this during the consultations agree with OPTA's proposal, albeit that a number of providers find that the cost orientation of the peak/off-peak structure and the flagfall charge should be assessed as well. According to them, these elements can also influence

competitive relations on the market. KPN Telecom does not agree with OPTA's line; it finds that the cost orientation of the tariffs on the level of the telephone service should be assessed as a whole. KPN Telecom's reason for this is that it needs a certain degree of commercial freedom in fixing the tariffs. KPN Telecom also finds that more and more arbitrary choices have to be made in allocation to a low level, which reduces the accuracy of the allocation.

In the consultation document, the Commission indicated that assessment on the services level is necessary for two reasons. The first is that this would ensure that users, irrespective of their calling behaviour, do not pay too much for telephone service. If the tariffs had to be assessed on the level of the entire telephone service, this would not necessarily be the case. For the average user who makes more or less equal use of the various services, there would not be much difference. If the tariff of one service is higher (than cost oriented), this will be compensated by lower (than cost oriented) tariffs for another service. This, however, does not apply to users who primarily use only one service. If precisely this service has a relatively high tariff (although compensated by lower tariffs elsewhere) such users actually pay too much with respect to the underlying costs. This would be prevented by assessing the cost orientation of the tariffs on the level of the services. The second reason for doing this is related to the development of competition. The Commission takes the position that in principle competition must be possible in every market sector. Here, too, it is so that problems could arise if the tariffs are assessed on the level of the entire telephone service. It will be difficult for a new provider of service A to compete if KPN Telecom's tariff for the same service is slightly lower (than cost oriented). The fact that this is compensated on the level of the entire telephone service by somewhat higher (than cost oriented) tariffs for other services is not relevant for this provider.

The Commission finds that the arguments put forward by KPN Telecom do not detract from the aforementioned standpoint. Viewed from the position of KPN Telecom, it is understandable that in principle it wishes to have as much commercial freedom as possible to set it's tariffs. Such freedom does need to exist, but within the limits that are necessary to protect the interests of users and other providers as well. Moreover, the argument that the accuracy of allocation is reduced if assessment takes place on a lower level misses the mark. Exactly for the purpose of preventing this, KPN has drawn up a detailed allocation system that was subsequently approved by the Commission.

Partly as a result of the input during the consultations and of a recent OECD analysis [5] of the development of consumer tariffs in the Netherlands after introduction of the flagfall charge, the Commission has reconsidered its earlier decision not to assess the peak/off-peak structure. This is discussed below.

5.4.2 Peak/off-peak structure

The acceptability of KPN Telecom's peak and off-peak structure cannot be properly assessed according to the principle of cost orientation. Two calls that only differ in that one is made in the peak and the other in the off-peak period make use of exactly the same network components. A tariff difference is

[5] See p. 28 of ´Regulatory reform in the Netherlands´, no. DSTI/ICCP/TISP(98)9

difficult to justify purely from the viewpoint of cost orientation. The tariff structure does, after all, have a behaviour influencing component (comparable to 'pay as you drive').

It is stipulated in the ONP Framework Directive (90/387/EC) that different tariffs may be fixed in order to take account of heavy traffic during peak hours and light traffic during off-peak hours, on condition that the tariff differentials are commercially justified and not in conflict with the basic principles of ONP.
In the ONP Voice Telephony Directive (95/62/EC) it is even explicitly prescribed that peak and off-peak hours must be part of the tariff structure (Article 14, paragraph 3). The use of peak and off-peak tariffs makes it possible in a certain sense to direct the calling behaviour of users. If more users can be convinced to call during the off-peak hours, network capacity can be planned better and used more efficiently. In principle, the better allocation of production resources results in lower total costs for the telecom operator. Ultimately, users will also profit from this. In view of the above consideration, the Commission finds that KPN Telecom must have the freedom within reasonable limits to maintain a certain peak/off-peak structure in the context of efficient network planning. The limits of reasonableness are mainly determined by the question whether or not other providers will be harmed by the structure chosen. The interests of users play a less important part here, since these are already protected indirectly by application of the principle of cost orientation to the tariffs. This is explained in more detail further on in this part.

On 1 July 1998, KPN Telecom extended the peak period from 6.00 p.m. to 8.00 p.m. The reason given by KPN Telecom for doing this is that the traffic between 6.00 and 8.00 p.m. has increased as a result of flexible working hours at businesses and an increase in Internet traffic. Another factor is that as a result of this change, the peak and off-peak periods are now equivalent to those of mobile telephony and international calls, which benefits transparency. The Commission asked KPN Telecom to substantiate the extension in the light of efficient network planning. From the information provided, it appears that the amount of traffic in the hours between 6.00 and 8.00 p.m. are almost the same as the amount of traffic in the earlier hours. In view of this, the Commission does not see any obstacles to the extension of the peak period.

For consumers in particular it is attractive in itself that different tariffs apply to different hours of the day. By adapting their calling behaviour to this, they can control their telephone bills to a certain extent. The peak/off-peak structure is reviewed indirectly in the assessment of the cost orientation of the tariffs. In the assessment it is examined whether the total income of a certain conveyance service (in this case turnover from both peak and off-peak calls) are reasonably in proportion to the underlying costs. Suppose that the conclusion is that the income is too high; KPN could achieve a better relationship between income and costs by either lowering the tariffs or shortening the peak period (and thus extending the off-peak period). The cost orientation review therefore protects users from too much divergence by the peak/off-peak structure from the underlying cost structure.

The interaction between the peak/off-peak structure and the tariffs has already been briefly discussed. In a situation where the tariffs are cost oriented, any extension of the peak period, assuming that the profitability remains the same, should result in lower conveyance charges. After all, calls that used to be made during the off-peak and are now made in the peak period result in a rise in income for KPN Telecom. Because of the requirement of cost orientation, in that case KPN Telecom would have to give back the extra income in the form of lower conveyance charges.

5.4.3 Flagfall charge

In a recent report (see footnote 5) the OECD concludes that the call charges in the Netherlands increased considerably in 1997 as a result of the introduction in that year of the flagfall charge. It must be noted that the effects of the simultaneous introduction of tariffs per second are not included. This, however makes a big difference. While previously at the beginning of a call one tick of about NLG 0.16 was charged (for which a certain number of seconds could be called), in the new situation NLG 0.10 is charged beforehand, and payment is only made per second. Upon introduction, at that time the Minister of Traffic, Public Works and Water Management, who was then still the regulator, determined that the replacement of pulse tariffs by tariffs per second (including the flagfall charge) had a neutral result. The OPTA Commission therefore does not share the conclusion of the OECD on this point.

The same partly applies to KPN Telecom's flagfall charge for initiating a telephone conversation as to the peak/off-peak structure; in the assessment of cost orientation, the flagfall charge is also indirectly reviewed. If the flagfall charge is too high, this would be expressed in the income allocated to the conveyance services.

The relationship between the flagfall charge and the conveyance charge can be outlined as follows. In a situation where tariffs are cost oriented, any increase in the flagfall charge, assuming the profitability remains the same, should result in lower conveyance charges. The extra income from the flagfall charge will have to be compensated by the lower income from the conveyance charges. The reverse also applies: a reduction in the flagfall charge, assuming the profitability remains the same, will result in higher conveyance charges.

The Commission is of the opinion that, with respect to fixing the conveyance charges, KPN Telecom should have the freedom within certain limits to determine the relationship between the fixed income (the flagfall charge) and the variable income (tariff per second). If cost oriented tariffs are fixed on the level of a certain service, in principle this means that the average user will not be harmed by the chosen relationship between fixed and variable components. As is apparent from the foregoing, the average user would also have to pay about the same with a different relationship between the fixed and variable components.

The foregoing is only inapplicable to atypical users who mostly make very short calls and to Internet users, whose calls are usually very long. If, in view of the underlying costs, the flagfall charge were too high, short callers would pay relatively too much (given the fact that, in comparison with average

users, they profit to a lesser extent from the accompanying lower conveyance charges), whereas long callers would benefit.

In view of the aforementioned, the Commission requested information from KPN Telecom in order to gain more insight into the calling behaviour of private and business users. It did not appear from this information that there are certain groups of users (among the private or business users) who mostly make very short calls. Furthermore, the Commission compared the costs of short calls in the Netherlands with those in other European countries. Taking account of typical differences such as flagfall charge versus charge per second, and pulse generated-billing versus per second-billing short calls in the Netherlands are among the cheapest in Europe. Based on the aforementioned considerations, for the time being the Commission sees no reason for a separate assessment of the cost orientation of the flagfall charge.

5.5 Weighing of interests

In assessing the cost orientation of the tariffs, the sometimes conflicting interests must be weighed of various parties, to wit users, other providers and KPN Telecom itself. The different interests are examined below.

In the short term, users will benefit from the lowest possible tariffs; the lower the tariffs, the lower the telephone bill. It may also be the case that people will call or use the Internet more often, partly because of the lower tariffs. That could result in a higher telephone bill, but the user would be getting more for his money. However, in the somewhat longer term, too low tariffs might result in an inadequate development of competition. This would limit the options of users. Eventually that could lead to the stagnation of the price development as well as the innovation of services.

For other providers, it is important to have enough possibilities available to enter different market sectors and to compete with KPN Telecom. Therefore, ideally speaking, there should be no maximum set for the tariffs of KPN Telecom. If the tariffs are not brought down to a cost oriented level 'artificially' through intervention by the regulator, there will be more room in the short term to acquire a position on the market. During the initial stage of competition, new entrants have to overcome a number of obstacles: they must compete against the 'economies of scale' and the 'economies of scope' of KPN Telecom by operating more efficiently, and they must convince users to switch to another provider. They will encounter difficulties particularly regarding the last-mentioned. Research of the business market has shown that companies can only be convinced to switch if tariffs are offered that lie about 10 to 15% under the price of KPN Telecom. Another threshold to the switch may be the reliability experienced from KPN Telecom and its established reputation. In addition, the relative ease with which calls can be made (at KPN Telecom without entering extra codes) also plays a part in the decision not to change over. In the somewhat longer term, however, other providers will have sufficient possibilities if the tariffs of KPN Telecom are fixed at a cost oriented level. To the extent that the telecommunications market continues to develop more and more into an ordinary, competitive market, the players will have to be able to compete with cost oriented tariffs which are more or less common in such a market.

Competition is increasing on the current telecommunications market. This will inevitably lead to a reduction of KPN Telecom's market share. Given the continuing growth of the market, this does not necessarily have to result in a lower turnover or lower profits. In the short term, in principle, KPN Telecom has an interest in gearing the level of the tariffs to the developing competition in the various market sector. Then KPN Telecom would always be able to consider whether lowering the tariffs is necessary to limit the loss of market share forecast if the currently fixed tariffs are maintained. In that case, decreased tariffs can be expected in market sectors where competition takes place and the same or higher tariffs in market sectors where there is still little or no competition. Particularly in the somewhat longer term (but also in the short term) it is important for KPN Telecom to earn a reasonable rate of return on its invested capital. This is necessary to be able to continue attracting capital for new investments. In order to earn a reasonable rate of return, the tariffs must not be fixed at too low a level.

The OPTA Commission is of the opinion that in weighing the different interests, the extent of de facto competition in the market (sector) must be the deciding factor. Where there is an adequate degree of effective competition, tariffs will be more of less cost oriented or - if they are not - tariffs will come under increasing pressure which will force them to reach a cost oriented level in the near future. Under such circumstances, the Commission does not find it necessary or desirable to intervene 'artificially' in the tariffs. At certain times, however, (e.g. annually) there must be an examination of whether the forecast development towards cost oriented tariffs is actually taking place. If it should appear that this has happened to an inadequate extent, intervention in the tariffs will have to be reconsidered. On the other hand, where there is as yet no effective competition and it is not expected in the short term, the Commission is of the opinion that for the time being, emphasis must be placed on protection of the users' interests. However, in doing so, the starting point must be taken into consideration that KPN Telecom should be able to earn a reasonable rate of return on investments made.

The Commission also notes that for some services provided by KPN Telecom, it might perhaps be desirable to set a lower limit on the rate of return to be earned. In the consultation document, the Commission took the position that achieving a very low rate of return for certain services in the initial stage of competition development could interfere with competition. Since it is not likely that venture capital would be available if a rate of return is forecast that is even lower than the risk-free rate of return on government bonds, it must be assumed in such a case that the low tariffs must be maintained in the short term to keep competitors out of the market. Only after competition has developed beyond the initial stage can a lower tariff floor be set which is more in keeping with the general rules of competition.

According to the reactions to the consultation document, the fixing of a tariff floor is considered by some providers as the most important function of the cost orientation review. KPN Telecom, on the contrary, finds that it would be economically wise to remain active in a certain market sector as long as the variable costs are compensated and a positive contribution to covering the common costs is generated. The Commission's comment on the last-mentioned is that it cannot be ruled out that such a supply could be considered predatory pricing within the meaning of the European and ensuing national competition rules. For example, in the 'Communication on the application of the

competition rules to access agreements in the telecommunications sector' [6] the European Commission deals with matters including the question of what constitutes predatory pricing. Reference is made to the decision of the European Court of Justice in the AKZO case (1991), in which it was determined that, in general, prices below the average variable costs can be considered predatory pricing. However, because the cost structures in network sectors (such as the telecommunications sector) are usually very different from those in other sectors, the Commission states that the variable costs of providing a telecommunications service are considerably lower than the price that an operator has to charge to cover the costs of providing that service. Therefore, when the 'AKZO test' is applied, not the average variable, but the total marginal costs involved in the provision of a service should be taken into consideration. Furthermore, it is also stated that a suitable timescale must be chosen within which the costs can be analysed.

In the Commission's opinion, the application of cost orientation to tariffs entails that in principle a reasonable rate of return on investments must be earned. In this context, reasonable does not only mean not too high, but also not too low. The Commission finds that KPN Telecom should have a certain degree of freedom to accept a lower rate of return on certain services than could objectively be considered reasonable. However, if a lower rate of return than that on risk-free long-term government bonds is earned, the Commission will consider this a signal for a further ex ante inquiry. The Commission will then examine the figures extra critically in order to prevent any margins of safety with respect to the figures (e.g. forecasts) from resulting in a distortion of competitive relations.

In order to apply the approach formulated in this part with respect to the assessment of the tariffs, the degree of competition in the various market sectors must be determined. This will be dealt with in the following part.

[6] Communication of 22 August 1998, no. C/265; see in particular points 113 and 114.

6. Market forces in market sectors

6.1 General

In order to give a decision on the extent of the *de facto* competition in the various market sectors, according to the Commission more must be considered in addition to whether other providers besides KPN Telecom are entering the relevant market sector. Other factors must also be included that can give an idea of the actual competition situation on a certain market. An analysis of the current situation on the Netherlands market has been made for the most important traffic services of KPN Telecom with respect to turnover. This has produced the following table.

Market Criteria	Local calls (within basic zone)	National calls (outside basic zone)	International calls	Fixed-to-mobile calls
1. Number of providers in the relevant market sector	almost exclusively KPN	several providers	several providers	several providers
2. Relationship between the market shares of the different providers	KPN > 99%	KPN approx. 95%, other providers 5% with resp. market shares between 0 and 1%	KPN 65-75%, other providers 25-35% with resp. market shares between 0 and 5%	KPN 90-95%, other providers 5-10% with resp. market shares between 0 and 2%,
3. The degree to which there is price competition in the relevant market sector	no price competition	limited price competition	heavy price competition	some price competition
4. The degree to which one of the parties can influence the pricing in the relevant market sector	KPN determines the market price	KPN determines the market price	KPN cannot determine the price itself	It has become more difficult for KPN to determine the price itself
5. Price development in the relevant market sector	no price development (except for re-balancing)	no price development (except for re-balancing)	continued fall in prices	limited fall
6. Profit margins in the relevant market sector (e.g. prices at the end of 1997)	above average [7]	above average	above average	above average
7. Obstacles to entering the relevant market sector	great	limited	limited	limited

[7] In this context, an above-average profit margin means a profit margin above the profit margin earned on the telephone service as a whole. This can be explained from a historic point of view: a below-average rate of return has always been earned on the connection service and, as compensation, an above-average rate of return on calls.

On the basis of the table above, an impression can be gained of the degree of competition in the various market sectors. In order to obtain a more detailed picture of the competition, the market sectors can be subdivided further into market segments. A distinction can be made between the consumer market, the small business market and the large business market. The least competition is found in the first-mentioned market segment and the most in the last-mentioned market segment. According to KPN Telecom, as far as the large business market is concerned, there is effective competition in all market sectors, with the exception of local telephony. The Commission acknowledges that there is a difference in the competition in the various market segments, but does not consider this to be of any consequence for the assessment. On the basis of the non-discrimination principle, KPN is obliged to charge the same tariffs to users of the same services. Therefore, tariff differentiation according to type of users or market segment is not permitted.

In the continuation of this part, the Commission will indicate how it assesses the degree of competition in the different market sectors, and what in its opinion the consequences of this should be for the assessment of the tariffs.

6.2 International

If the situations in the different market sectors are compared with each other, it can be said that the market for international calls is undoubtedly the most competitive. Given the market share of KPN Telecom, it more than likely has a dominant position on this market. In spite of this position, KPN Telecom is no longer able to influence the supply conditions on this market to a significant extent. On the contrary. Under pressure from the supply of other providers, KPN Telecom is constantly being forced to reduce its tariffs. Since the end of 1997, KPN Telecom has considerably reduced the international tariffs three times (in October 97, April 98 and July 98). This also means that the high profit margins realized by KPN Telecom in previous years on international calls have shrunk significantly. In the Commission's opinion, on the international market as a whole there is such a degree of effective competition that assessment of the tariffs for their cost orientation is not necessary. As a result of the competition, the international tariffs are expected to decrease further in the years to come.

The Commission, however does not rule out the fact that the tariffs for calls to certain international destinations where there is little competition are too high in comparison with the underlying costs. It could mean that the interests of some users (probably foreigners, among others) who frequently call these destinations are not adequately protected. At present, the Commission has no insight into the costs and income per destination. In approving the allocation system for voice telephony, the Commission stipulated that KPN Telecom had to adjust the system on this point. This must be completed by mid October 1998. If it should appear at that time that significantly higher rates of return are earned on traffic without much competition than on traffic to other destinations (with more competition), the cost orientation of these tariffs could be called into question. According to the Commission, the consequences to be attached to this must also depend on the question of whether the countries to which calls are made have undertaken to comply with the WTO agreements [8]

[8] WTO: World Trade Organization

on the further liberalization of international telephone traffic. In so far as countries potentially allow other providers than the national PTTs to offer traffic for completion, there seems to be less need for intervention. If countries are concerned which have not undertaken to comply with these agreements, competition will not be able to play any meaningful role in forcing down the tariffs. The Commission finds that the tariff in such a case must be considered insufficiently cost oriented, if a more than reasonable rate of return or profit margin is made on traffic to those destinations.

In summary, it comes down to the fact that, at present, the Commission will not assess the cost orientation of the international tariffs. Later this year the Commission will decide whether the tariffs for calls to areas where there is little competition are sufficiently cost oriented. It can then be reviewed whether the tariffs fixed for certain other destinations result in an unreasonable distortion of competitive relations. This could, for instance, be the case if services are provided below the cost price.

6.3 National calls

With a market share of 95%, KPN Telecom has a very dominant position on the market for national calls. Various carrier select providers may well offer national calls at lower tariffs than KPN Telecom but, except for the re-balancing as of 1 July 1998, this has not yet led to reduction of the tariffs. Apparently, most users must cross a number of thresholds (entering additional codes, little difference in price, reliability of the existing provider) before they are prepared to change over. The Commission opinion is that there may well already be some competition on this market but, as is apparent from experience abroad, this will not be enough to bring the tariffs on which KPN earns an above-average profit margin down to a cost oriented level in the short term. A recent study commissioned by OPTA's Swedish sister organization (Post- & Telestyrelsen) shows that four years after full liberalization, 92% of the turnover on the national and international telephone service market in Sweden is still realized by the former Telia monopoly. In other EU countries, which had liberalized earlier than the Netherlands, the experience is the same: market forces begin to work gradually. Therefore the Commission considers it necessary to assess the cost orientation of national calls, on the one hand to protect the users, while, on the other hand, not removing the incentive for competition which is still in a developmental stage.

6.4 Fixed-to mobile calls

With respect to market conditions, this market is comparable to the market for national calls. Here, too, carrier select providers are active who sometimes provide their services for very low tariffs. For the time being this has only resulted in a slight reduction of KPN's tariffs. Compared to the tariffs on the fixed and the mobile networks (14.5 cents and between 25 and 35 cents in the peak), the fixed-to mobile tariffs (90 cents in the peak) are very high. Seen objectively, such a difference cannot be justified, since a fixed-to mobile call can be considered a combination of a call on the fixed and a call on the mobile network. DG IV of the European Commission published its provisional findings in July 1998 as a result of research into the level of the fixed-to mobile tariffs in the different countries of the European Union. DG IV concludes provisionally that the tariff in the Netherlands is on the high side and that several causes possibly forming the basis for this should be studied in more detail. DG

IV has asked OPTA to carry out part of this study. As one of the causes, DG IV mentions the perhaps too high 'retention' (profit margin) on fixed-to-mobile calls. The OPTA Commission will also take this aspect into consideration in assessing the cost orientation of the tariffs.

According to the Commission, there is no good reason why fixed-to-mobile calls should have a higher profit margin than calls on the fixed network. The value added by KPN Telecom to a call from a fixed to a mobile user is not greater than that of a call from a user of the fixed network to another user on the fixed network. It is not as if a fixed-to-mobile call takes up more of the PTT network than a national call handled completely via the PTT network. Furthermore, in the Commission's opinion the characteristics of the market for fixed-to-mobile calls are comparable to a high degree to the market for national calls. Therefore, the Commission considers the same profit margin as on national calls via the fixed network reasonable (in absolute terms) for fixed-to-mobile calls.

In the case in question, the Commission does not consider 'rate of return on invested capital' to be the best standard for determining the reasonableness of the profit margin. Compared to the other services offered by KPN Telecom, the role of invested capital is considerably less important here. For most of the other services (in particular for connection, local telephone service and national telephone service), the invested capital is many times more than the annual costs involved in providing the service (particularly payments to mobile operators for terminating access). The reverse is true of fixed-to-mobile traffic: the capital invested is much less than the annual costs involved in the service. This means that in fixing a cost oriented tariff, the profit margin does not necessarily have to be determined by way of the reasonable rate of return.

6.5 Local calls

Competition for local calls is virtually absent. Connections to alternative providers are possible in a limited number of places in the Netherlands, often on an experimental basis. These providers usually supply national calls as well. At present, local calls are provided via carrier select. The margins between the end users' tariffs and the interconnection tariffs are just too small or even negative. It appears that there will only be a good possibility of competition for local calls in the long run if other providers have their own access lines or their own alternative infrastructure. The Commission does not expect any large-scale competition for access networks in the next few years, nor in the field of local calls. That is why the Commission finds it advisable and necessary to assess the cost orientation of the local tariffs.

6.6 The connection service

To obtain a connection to a public telecommunications network, users - in particular private users - are still primarily dependent on KPN Telecom. As stated in the preceding part, partly on the basis of the experience other countries, including the United Kingdom and Sweden, the OPTA Commission does not expect any large-scale competition for access networks in the next few years. This applies to both the supply of analogue PSTN connections and the supply of digital ISDN connections. As there is as yet no question of a competitive market, the Commission will assess the cost orientation of both PSTN and ISDN connections.

In the assessment of the ISDN tariffs, the interest of other (potential) ISDN providers also play an important role. The figures presented by KPN Telecom show namely that KPN Telecom is providing ISDN at a loss. This makes it very difficult for other providers to acquire a position on the market. The Commission devotes a separate discussion to this in Part 9, Part 2.

6.7 0800/090x calls

The market for 0800/090x calls is the market on which so-called platform providers handle terminating access to 0800/090x numbers for the providers of information services. These providers may be businesses that want to exchange specific information with their customers in the framework of their business activities or providers that sell professional information or make it available to users. KPN Telecom's 0800/090x operations are incorporated in the Call Media business unit, which undoubtedly has a dominant position on this market. However, since the beginning of 1998 there have also been alternative platform providers that handle terminating access to 0800/090x calls.

The 0800/090x market focuses mainly on users in the small business market segment. In principle, business users will have more of a tendency to switch to another provider than consumers. This is because business users are generally better informed about the offers on the market than consumers. This category of users can also make more savings by changing over. It is also very important for the development of competition on this market that KPN Telecom already provides number portability for 0800/090x numbers. In principle, this removes one of the most important obstacles to changing over. On the basis of the foregoing considerations, the Commission finds that in assessing the 0800/090x tariffs, the emphasis should be placed on safeguarding good competitive relations on this market. Therefore, the Commission will especially review whether the tariffs are too low with respect to the underlying costs.

6.8 Pay-telephones

KPN Telecom is statutorily obliged to earn a certain density of pay-telephones in the Netherlands. At the moment, KPN Telecom is the only provider in the whole country that operates pay-telephones on public land. There is no competition at all, and the Commission expects this situation to continue for the time being. The Commission will assess the cost orientation of the pay-telephone tariffs.

7. Specification of the tariffs to be assessed

7.1 Supporting services

A number of services for which KPN Telecom has also provided information on the costs and income have not yet been dealt with. These are two services that support the telephone service: the directory listings and accompanying distribution of telephone directories, and the information service (0900-8008). The question is whether or not these services should also be assessed as to cost orientation.

Anyone who subscribes to KPN Telecom receives a free listing in the telephone directory and a free telephone directory almost every year in which the telephone numbers are included of subscribers in the region. If this additional service is examined separately, it is supplied at a loss. There is hardly any income against the costs that must be incurred (keeping the data file up to date, printing and distributing directories). The Commission does not find it advisable to assess the costs and income of this service separately. In the Commission's opinion, it is reasonable for the costs and income of this service to be incorporated into the monthly rental of the ordinary telephone service and ISDN. Therefore, KPN Telecom should allocate the costs and income of the directories to the PSTN and ISDN connections, in proportion to the number of subscribers.

The information service is comparable in a certain sense to the provision of directories. Under both national and European rules, KPN Telecom is obliged to offer an information service. If the tariff for information is not too high, this in itself promotes low-threshold communication between users. At present, KPN Telecom is incurring losses on its information service. In order to bring the tariffs up to a break-even level, the tariff for this service would have to be rased substantially. As the nature of the service is not conducive to competition, according to the Commission there is no immediate reason for KPN Telecom to terminate the loss-making supply. For the rest, KPN Telecom is free to raise the tariff to achieve more cost-effectiveness.

If cost oriented tariffs are fixed, KPN Telecom may not compensate any loss by raising the tariffs elsewhere. It is not as if increasing a cost oriented tariff will result by definition in a tariff that is not cost oriented. This would mean that KPN Telecom either has to compensate the loss on 8008 from *the profit* made on other services, or make it up by raising the tariff. The first alternative is not very attractive to KPN Telecom, while the second is not really in the users' interest. In view of this, the OPTA Commission finds that, in principle, KPN should add the costs and income of this service to those of other services.

In most cases, consultation of 0900-8008, through which telephone numbers in the Netherlands can be requested, will be followed by a telephone call to the number requested. Because of this causal connection, the Commission considers it reasonable for KPN Telecom to allocate the costs and income of the information service to the most important categories of national traffic, namely local calls, national calls and fixed-to-mobile calls in proportion to the turnover.

7.2 Tariff packages and re-balancing

KPN Telecom now offers three different tariff packages: the Belbudget, Belbasis and Belplus subscription. Each tariff package consists of a certain combination of monthly rental and call tariffs. For instance, Belbudget has a low monthly rental and high call tariffs, whereas Belplus has a high monthly rental and lower call tariffs (in the off-peak period). The great majority of PTT subscribers have the standard subscription, Belbasis, with a monthly rental and call tariffs that are in between the others. The provision of different tariff packages is attractive to users. They do not necessarily have to take the standard subscription, but may choose the tariff package best suited to their own calling behaviour. Therefore, OPTA finds that in principle KPN Telecom may offer different tariff packages.

During the consultations, several parties argued that tariff packages are not in keeping with the principle of cost orientation. If a certain service is offered with different tariffs in different packages, there is no question of cost orientation: a tariff is either cost oriented or not. The Commission has the following comments in this regard. In the consultations on the telephone tariffs, OPTA took the position that, in any case, KPN Telecom should offer a tariff package in which the traffic-independent costs of the access network are fully passed on in the monthly rental (this is also called a fully re-balanced subscription tariff). If the costs of the connection (the line from the local exchange to the home) is completely passed on in the monthly rental, the mark-up traditionally included in the call tariffs to make up the connection costs not fully covered by the monthly rental would not be necessary. If a subscriber has paid the full price for his connection, he is then free to have terminating access handled (through carrier selection) by the provider of his choice. By fully paying the costs of the access line, a subscriber can as it were buy off the obligation from KPN Telecom to have terminating access handled by KPN Telecom itself.

On 1 July 1998, KPN Telecom increased the monthly rental of Belbasis (and Belplus) and reduced the call tariffs of both packages. In the Commission's opinion, since then Belbasis can be considered as a fully re-balanced tariff package. Whether or not the tariffs are cost oriented has not yet been assessed. This is to be done now; whether or not KPN Telecom passes on more than a reasonable rate of return in the tariffs will be assessed. As long as KPN Telecom in any case provides a tariff package with cost oriented and re-balanced tariffs, it will be free to offer other tariff packages in addition with elements that are not 'cost oriented'. These other offers may not, however, result in a restriction of competition. OPTA will assess the Belbudget and Belplus tariffs against this background.

7.3 Survey of the tariffs to be assessed

In the previous parts, the method to be used by the OPTA Commission in assessing the cost orientation of the tariffs was indicated, as well as the tariffs to be assessed. For the sake of clarity, the Commission has given a list of these tariffs below.

PSTN-Belbasis

a) the once-only connection charge;
b) the monthly rental;
c) the local call charges;
d) the national call charges;
e) the fixed-to-mobile call charges;

PSTN-Belbudget

f) the complete tariff package;

PSTN-Belplus

g) the complete tariff package;

ISDN-Belbasis

h) the once-only connection charge;
i) the monthly rental;

ISDN-Belplus

j) the once-only connection charge;
k) the monthly rental;

0800/090x services

l) connection charge and subscription charges;
m) conveyance charges for the completion of 0800/090x traffic;
n) discount arrangements;

Pay-telephones

o) the call charges;

Discount arrangements

p) WorldLine;
q) CountryLine;
r) Corporate Plan One.

8. Reasonable rate of return

8.1 Introduction

Cost orientation is understood to mean that the tariffs must be a reflection of the underlying costs, including a profit margin. Below, the Commission will discuss the method by which a reasonable rate of return can be determined, or more precisely, what a reasonable rate of return is on the invested capital. By relating the total of the profit margins (the profit) to the invested capital, the rate of return on the invested capital can be determined.

During the consultations, a number of parties stated that, with respect to the issue of rate of return, the Commission should concentrate on determining a minimum rate of return. This was thought to be necessary in order to initiate the further development of competition. In its reaction, KPN Telecom states that an assessment of cost orientation should take place at the level of the telephone service as a whole. Furthermore, it states that the issue of a reasonable rate of return actually concerns the question of what the level is of KPN Telecom's cost of capital. In finance theory, cost of capital means the minimum rate of return that the providers of capital require for making capital available. As a general rule, KPN Telecom can agree with the use of the "Weighted average cost of capital" method (WACC) proposed by the OPTA Commission.

The OPTA Commission is of the opinion that the degree of competition in the different market sectors is such that in most cases it is still necessary, partly to protect the interests of users, to fix a maximum rate of return (see also Part 6). The Commission will use the WACC method to determine a reasonable maximum rate of return. Otherwise than proposed by KPN Telecom, the Commission will assess the reasonableness at the level of the different components of the telephone service. This is to protect the interests of both users and other providers. At this time, the Commission does not see the need for any further unbundling. For a more detailed explanation of the assessment level chosen by the Commission, for the sake of brevity the Commission refers to the preceding parts, in particular Parts 5, 6 and 7.

OPTA has consulted the Dutch Competition Authority (NMa) on the issue of how the term 'reasonable rate of return' should be dealt with. A joint working document was drawn up (dated 30 June 1998) containing a conceptual framework for this purpose. This part is based on the starting points formulated in the working document. They focus on the use of the WACC method and the "Capital asset pricing model" (CAPM) in determining the reasonable rate of return. Below, the Commission discusses the manner in which these methods were used in this case.

An important point is how a reasonable rate of return can be determined as objectively as possible for the *different components of the telephone service as distinguished by KPN*. The Commission does not find it sensible or necessary to base the separate rates of return on a reasonable rate of return that can be fixed for the telephone service as a whole. The rate of return that the enterprise earns as a whole is precisely a (weighted) average of the rates of return made on the performance of the different activities that can be distinguished and not the other way around. Therefore it is not really

possible to determine a reasonable rate of return for the different components of the telephone service on the basis of a reasonable overall rate of return. The following example is given as clarification:
Suppose that a telephone service consists of three different services: service A, service B and service C. Also suppose that in a suitable manner (e.g. using the WACC method) it can be determined that a rate of return of x% is reasonable for the telephone service as a whole. If a reasonable rate of return is subsequently fixed for service A, this indirectly determines what the joint rate of return can be on services B and C. In the event that a decision on the rate of return of service B is made separately, the 'reasonable' rate of return on service C will be determined automatically. Moreover, the matter becomes even more complicated in practice if some services contribute to the overall rate of return but no longer need to be subject to a maximum rate of return (such as international destinations with sufficient competition).

Such an approach whereby the rate of return of the separate services is derived from the overall rate of return will result in linking the rates of return of the separate services to each other in a certain sense. In reality, there is no question of such linkage. Each market sector does, after all, have its own characteristics and dynamics. The Commission does not consider it desirable in assessing the cost orientation of the tariffs to make an artificial link between market sectors. In assessing the tariffs at the level of the distinguished services, as endorsed by the Commission, it is in fact irrelevant what a 'reasonable' overall rate of return is for the telephone service as a whole. It is only important to determine a reasonable rate of return for those different components of the telephone service for which the fixing of a maximum rate of return is considered necessary. For this purpose, in the Commission's opinion a reasonable rate of return should be determined for each component in the most direct manner possible. Furthermore, the Commission finds that this can be implemented. The Commission discusses this further later on in this part.

Finally, it should be noted that the Commission has taken the position (see also § 5.5) that where there is no question of effective competition and where it cannot be foreseen in the near future, the emphasis in assessing the tariffs should now be placed on protection of the interests of users, particularly consumers. On the other hand, the Commission finds that sufficient account must be taken of the interest of KPN Telecom in achieving a reasonable rate of return on invested capital. For services that are provided on markets where there is no effective competition, the Commission considers the minimum rate of return required by providers of capital, the WACC, also to be a reasonable rate of return in the light of the assessment of the cost orientation of the tariffs.

8.2 The WACC method

In the WACC method, the weighted average cost of the total capital is determined by weighting the cost of equity capital and that of debt. This method is based on the fact that both the providers of equity capital (the shareholders) and the providers of debt (the creditors) require a minimum payment for the capital they have made available. This payment is based on the one hand on a so-called time preference rate which serves as compensation for the fact that the provider of the capital will not have the capital available for a longer or shorter time period, and on the other hand it is compensation for the risk run by the provider of the capital. Equity and debt differ on this point.

Since the interest and principal payments on debt are fixed, whereas dividends and price gains are dependent on the result of the business activities, a provider of equity capital runs a greater risk than a provider of loan capital. He will want to have a higher (forecast) rate of return set against that extra risk. Therefore, as a rule, the cost of equity capital is higher than the cost of loan capital.

The foregoing shows that there is a relationship between the weighted average (total) cost of capital (WACC) of the enterprise and the risk of the business activities. If an enterprise performs different business activities with different risks, each of those activities will therefore have its 'own' WACC. The rate of return that the company passes on in the tariffs of each of these activities will therefore also be different and partly dependent on the risk connected with it (which is expressed in the so-called beta of the activity). The Commission refers to Appendix 2 for a more detailed description of the WACC method.

In applying the method outlined in Appendix 2, the Commission will determine the 'own' WACC for a number of components of the telephone service. For this purpose, the following parameters have to be estimated:

- *General parameters*
  These are not specific to the enterprise (or the activity). They concern:
  - the risk-free interest rate (Rf);
  - the market risk premium (Rm-Rf).

- *Specific parameters*
  These are specific to the enterprise (or the activity). They concern:
  - the marginal (corporation) tax percentage;
  - risk premium on debt capital (Rp);
  - the proportion of debt/total capital or: the gearing ratio;
  - the specific risk of the enterprise or activity (β).

In assessing the cost orientation of the interconnection tariff (EDC Decree, Official Gazette 141 of 29 July 1998) the Commission already made a decision on the value of the aforementioned parameters. With respect to the different components of the telephone service, in some cases the same value can be maintained and a different value will have to be determined for other parameters. There will always be an indication of why the values concerned were chosen. For the sake of completeness, the Commission notes that in some cases a range is maintained for the value of a parameter. The calculation of the WACC for the different services will therefore provide a range for the WACC.

8.3 The general parameters

8.3.1 The risk-free interest rate (Rf)

The risk-free interest rate is the rate of return that can be made on investments without any risk. The standard for this is usually the rate of return on government loans. The rates of return on government bonds, however, vary with the term. The question is then what the representative term is. As a general rule, this can be determined according to the length of time the capital remains fixed in the asset with which the different activities are performed.

KPN Telecom states that the average life of the assets of KPN Telecom is about 10 - 15 years. Since the rates of return on government bonds with a term of 10 - 15 years do not differ much from each other, KPN Telecom proposed using the rate of return on bonds with a term of 10 years as an estimate of the risk-free interest rate. Now that the Commission has chosen not to calculate a WACC for KPN Telecom as a whole, but for the different components of the telephone service, the Commission finds that account must be taken with possible differences in the life of the assets involved. The Commission assumes that the average life of assets used for traffic services or connection is 10 or 20 years, respectively. According to the statistics published by the Netherlands Central Bank, in July 1998 the average effective rate of return on government bonds with a 10-year term was 4.76% and that of the 5 longest-term government bonds was 4.97%. The Commission will use the same percentages in the WACC calculations.

8.3.2 The market risk premium (Rm-Rf)

This is a standard for the extra rate of return required by a provider of capital on a non-risk-free investment on the stock market with respect to the risk-free rate of return on government bonds. In its reaction to the consultation document, KPN Telecom estimates the market risk premium for the Netherlands at 7 to 8%. This estimate is based on a study by KPN Telecom of the difference observed in the past between the rates of return on shares and bonds. Several time periods were involved, varying from the period 1995-1997 to the period 1947-1997. On commission from OPTA, the research bureau NERA (National Economic Research Associates) studied how the WACC for KPN Telecom's interconnection activities should be calculated. In its report on the calculation of the WACC of KPN Telecom's interconnection activities (of 23 June 1998), NERA indicates that determination of the market risk premium depends strongly on the period to which the calculations apply, on the method chosen for the calculation and on the choice of ex post or semi ex ante rates of return. NERA concludes, among other things, that the study of KPN Telecom is based on an ex post approach through which the outcomes will be on the high side. The NERA suggests using a range for the market risk premium of 4 to 7%. In assessing the cost orientation of the interconnection tariffs, the Commission proceeded from this range. A market risk premium of between 4 and 7% will also be used by the Commission in assessing the telephone tariffs.

8.4 The specific parameters

8.4.1 The corporate tax percentage (T)

The effective tax percentage of an enterprise can differ from year to year, depending on the tax situation. For KPN, this percentage actually fluctuates around the nominal 35% [9]. KPN has proposed using 35%. Because the effective tax percentages of KPN hardly deviate from the Netherlands nominal tax percentage of 35%, the Commission finds it reasonable to use this percentage.

8.4.2 The risk premium for loan capital (Rp)

This is the additional rate of return required by the providers of debt over and above the risk-free rate of return, for the higher risk involved in investing in the loan capital of the specific enterprise. KPN Telecom is of the opinion that after the recent splitting of KPN a risk premium of 0.5% is justified on the basis of the expected credit rating. In assessing the cost orientation of the interconnection tariffs, the Commission used a range of 0.3 to 0.5%. Now, too, the Commission will use the range of 0.3 to 0.5%.

8.4.3 The gearing ratio (LC/TC)

In assessing the cost orientation of the interconnection tariffs, the ratio of debt to total capital was determined at 0.17. The ratio is based on market values. The Commission will use the same ratio in this case.

8.4.4 The specific risk (ß)

As stated above, the beta can be different for each activity. As a rule it should thus be possible to determine a beta for the different components of the telephone service, although this is rather complicated in practice. A beta is determined on the basis of variations in the price development of a share compared to the variations in the market index. In order to determine an objective beta, it is therefore necessary for the activity to have the activity incorporated in a separately listed company. Such information is not easily available because the different activities offered by KPN Telecom under the umbrella of the telephone service are not carried out by separately listed companies.

Nevertheless, on the basis of a qualitative analysis, the best possible estimate can be made of the beta of different activities. In assessing the cost orientation of the interconnection tariffs, the Commission took the beta of KPN over the period from introduction up to and including 31 December 1997 as representative of KPN Telecom's interconnection activities. The beta of KPN Holding (from before the split-up) was designated as the relevant beta for KPN Telecom's interconnection activities. This beta is 0.84. The Commission took into consideration that the beta of KPN Holding was a weighted average of the betas of the postal activities and the telecom activities. Since the beta for the postal activities will be lower than that of the telecom activities, the beta for

[9] For example: 1996: 36.2%; 1997: 34.2%

KPN Telecom is likely to be higher than 0.84. The beta of KPN Telecom is, however, in turn a weighted average of KPN Telecom's activities in the fields of interconnection, voice telephony, leased lines, terminal equipment, pagers, mobile telephone service and other activities such as participating interests abroad. Because the risk profile of interconnection (and thus the beta) is considered the lowest, the Commission took the beta of the KPN Holding (before the split-up) as a good estimate of the beta of the interconnection activities.

A similar estimate is possible in order to determine the betas of the different components of the telephone service. In its reaction to the consultation document, KPN Telecom takes the position that the beta for KPN Telecom is about 1. KPN Telecom comes to this conclusion partly on the basis of a comparison of the betas of similar telecom operators in other countries. The Commission considers this in itself a reasonable estimate for the beta of KPN Telecom as an enterprise. That beta can be considered as the weighted average beta of the betas of the different activities carried out by KPN Telecom. The most important activities of KPN telecom are mentioned above. The performance of these activities requires a different risk profile and therefore also a different beta. The betas range from 0.84 for interconnection activities to a beta of more than 1 for mobile telephone service. The betas of the other activities are in between. This also applies to the beta of KPN Telecom's telephony activities. This beta is in principle composed of the betas of the different components of the telephone service. On the basis of the starting points mentioned above, a range can be determined within which the betas of the different components of the telephone service (the most important of which are the connection, local calls, national calls, fixed-to-mobile calls and international calls) can be found.

The Commission is of the opinion that the risk of investments in the access network local loop is comparable to the risk of investments in interconnection. The risk profile of interconnection is mainly determined by the fact that KPN Telecom alone has a fine-meshed access network that covers the entire country. As most of the users of telephone services are connected via the access network of KPN Telecom to a telecommunications network, most telephone calls will begin and end in the PTT network. In other words, other providers are almost always dependent on the access network of KPN Telecom for the completion of their calls. Until alternative infrastructures of considerable scale are available and have proved themselves to be a real alternative to the access network of KPN Telecom, the risk of investments in interconnection will therefore be limited. For telephone service, the access network fulfils practically the same function as for interconnection. Almost all users of telephone services are still dependent on the access network of KPN Telecom to be able to make telephone calls. Up to now they have only been able to choose in a very limited number of cases (and regions) to purchase a connection (subscription) to the network of another provider. Although it is now already possible to have terminating access handled by other providers via carrier selection, it is still necessary to use the access network of KPN Telecom. Also for the telephone service, the risk of investments in the access network is limited as long as no alternative infrastructures of significant scale become available that offer the same or better functionalities than those provided by the KPN Telecom access network. On the basis of these considerations, the Commission will use the same beta for the access network as for interconnection (0.84). This approach assumes that KPN Telecom will receive a fee for unbundled access to the access network that is sufficient compensation of the costs attached to the 'taken over' part of the access line.

For the time being, local calls will mainly be provided by parties with their own access networks. After all, the provision of local calls via carrier selection is hardly attractive to other providers because of the small margins (or even negative margins depending on the level of interconnection). For providers with their own access network it is indeed attractive, in addition to supplying connections, to supply terminating access for local calls at low additional costs. However, as outlined above, there are at present too few real alternatives available to KPN's access network. Therefore, hardly any competition takes place for local telephone service. It is conceivable that some providers will supply local telephone service via carrier selection as a way to offer users a full service package. For the time being, however, the Commission considers the risk profile of investments in local telephone service to be closely connected (and therefore comparable) to that of investments in an access network. The beta may well be marginally higher than that of the access network, but the risk-free interest rate used as a basis for the WACC calculations is lower than that used in the calculations for the access network. This has to do with the shorter term of the investment. Therefore, the Commission will use the same WACC for local telephone service as for the access network.

With respect to investments in national calls, it can be stated that the risk profile is greater than that of investments in local calls. On the market for national calls, there is already a small degree of competition via carrier selection. However, there is as yet no question of effective competition. Carrier pre-selection (forecast as of 1 January 2000) may perhaps bring about a change in this. On the other hand, the risk of investments in national calls is smaller than that of investments in international calls. On the latter market there is heavy competition characterized among other things by continuing price decreases. The Commission assumes that the beta of international calls will in any case be above 1. The beta of the national telephone service is only defined to a limited extent with 0.84 as the lower limit and 'above 1' as the upper limit. Further definition is necessary and can be obtained by comparing the provision of national telephone service with the other activities of KPN Telecom. If the whole of these activities are examined (interconnection, voice telephony, leased lines, terminal equipment, pagers and mobile telephone service) which themselves consist of different sub-activities, the Commission is of the opinion that the provision of national calls does not entail any more risks than the average business activity. Therefore, according to the Commission, using a beta of more than 1 for national calls is not justifiable. In the further calculations the Commission will use a beta of 1 for national calls.

The Commission will not deal any further with the beta for fixed-to-mobile calls at this time. It has already been indicated in section 6.4 that the Commission will consider the tariffs for fixed-to-mobile traffic to be sufficiently cost oriented if the profit margin (in absolute terms) is not greater than the profit margin passed on by KPN Telecom after the cost orientation assessment in the tariffs for national telephone service.

On the basis of the foregoing considerations, an activity WACC can be determined for the connection service, local calls and national calls. The Commission realizes that making a quantitative estimate of the respective betas based on a qualitative analysis is not without risks. It could be said that quantitative values cannot be determined in the basis of a qualitative analysis. Such an argument

touches the foundation of the aforementioned reasoning and therefore deserves special attention and further explanation.

The OPTA Commission finds that the method used is the purest manner to determine for each sub-activity (i.e. supplied component of the telephone service) as objectively as possible the minimum rate of return required by investors. In the foregoing, the activity betas have been estimated as closely as possible with the support of available (quantitative) information on the beta of KPN Holding (before the split-up) and KPN's own estimate of the beta of KPN Telecom. Although it is only an estimate, in Board's opinion it is the best estimate that could be made on the basis of the presently available information. The Commission has purposely not included the beta of KPN determined on the basis of the share price since the split-up on 29 June 1998 in the calculations. The track-record is too short to be able to determine a reliable beta; in general, the customary period for doing so in the financial world is 5 years.

8.5 Results of the calculations

Now that all parameters are known, WACC for the different services can be determined.

	PSTN connection		*National traffic*	
	Low	High	Low	High
risk-free interest rate	4.97%		4.76%	
market risk premium	4.0%	7.0%	4.0%	7.0%
beta	0.84		1.0	
cost of equity capital (after taxes)	8.3%	10.9%	8.8%	11.8%
tax percentage	35%		35%	
cost of equity capital (before taxes)	12.8%	16.7%	13.5%	18.1%
risk premium for debt	0.3%	0.5%	0.3%	0.5%
cost of debt (before taxes)	5.27%	5.47%	5.06%	5.26%
gearing ratio	0.17		0.17	
WACC (before taxes)	11.53%	14.78%	12.05%	15.91%

Mid-point WACC	13.2%	14.0%

Thus, a range is created within which the WACC can be found. The Commission finds it reasonable at this time to maintain the mid-point WACC as a standard for the reasonable rate of return. As competition in the different market sectors increases, KPN Telecom should be able to have more freedom to fix its tariffs within this range.

8.6 Use of the results

8.6.1 General

The reasonable rate of return determined by way of the WACC method indicates the rate of return required by investors for the provision of capital. With a lower rate of return, they will attempt to withdraw the capital provided from the enterprise (e.g. by selling their shares). With a higher rate of return, the existing investors will receive a higher payment than required which will make it *ceteris paribus* more attractive to a larger group of investors to make capital available.

It is important to realize that the calculated rates of return are always *ex ante* rates of return. The indicate the rate of return that KPN Telecom should earn by fixing a certain tariff under circumstances which otherwise remain the same. This means that no account is taken of volume changes (e.g. independent increase in traffic, change in market share), changes in costs (different purchase prices, productivity improvement) and possible elasticity effects. If tariffs are determined on the basis of *ex ante* rates of return, KPN will partly be able to realize a higher *ex post* rate of return on its own account. In the event that the tariffs are regulated on the basis of *ex post* rates of return, this would take away an important stimulus to strive for better results, particularly where cost savings are concerned. Otherwise, assessment on the basis of *ex ante* rates of return does not affect the fact that any excessive *ex post* rates of return of KPN Telecom could result in abuse of a dominant economic position. Given the periodic assessment of the tariffs (at present every two years, after the Telecommunications Act comes into effect annually) the Commission does not expect the *ex ante* and *ex post* rates of return to differ much from each other. This also applies to the situation in which the tariffs are regulated by means of price caps as proposed by the Commission. In the part about price caps (Part 11), the Commission will discuss this further.

Based on these considerations, the OPTA Commission will now assess KPN Telecom's tariffs on the basis of the *ex ante* rates of return determined. On the one hand, this will give KPN Telecom a better opportunity to satisfy its investors, and on the other hand users will be protected against too high tariffs.

8.6.2 Capital employed and profitability

The calculated WACCs should be related to the invested capital in order to determine the normalised profitability of the different components of the telephone service in absolute terms. The profitability (previously) determined in this manner will finally be translated into a profit margin that may be passed on in the tariffs in addition to the costs of the different components of the telephone service. After determination of the WACC, the value per service must be determined of the assets employed in the provision of the service concerned (or: the capital employed). An important part is played by the accounting principles to be used in this connection to determine the book value of the capital employed. This particularly concerns the question whether valuation should take place on the basis of historical costs or replacement value.

Ideally speaking, a market-oriented approach should be used in calculating the profitability with respect to both the WACC and the capital base. This interfaces as far as possible with the profitability 'actually' required for the different activities of an enterprise. As described in the preceding sections, the Commission has used a market-oriented approach to determine the WACCs of the different activities falling under the telephone service.

In using a market-oriented approach to determine the capital base, a problem arises in connection with voice telephony in that its allocation system is based on historical costs. Both the costs and the book value are valuated on the basis of historical issue prices. For the purpose of calculating the profitability, an estimate could perhaps be made of the extent of the costs and book values on the basis of replacement value (market-oriented approach). In the OPTA Commission's opinion, however, this would be at the expense of the reliability of the currently available information. In setting up the system for allocation of the costs, income and book value to the different components of the telephone service, KPN chose valuation on the basis of historic costs. The Commission agreed to this system and approved it after assessment. Subsequently the system was used by KPN Telecom by which data approved by the auditor are currently available on the various book values. The Commission finds that these data should be used as a starting point for calculation of the permitted profitability.

In its reaction to the consultation document, KPN Telecom objected to such an approach. According to KPN Telecom, a rate of return on book value may not be equated with the cost of capital on the basis of market value (WACC). Providers of capital expect this rate of return on the money they have invested, in other words on the enterprise's market value. Therefore, the WACC based on market values, as arrived out via the CAPM, cannot simply be used as a standard for the accounting rate of return. The Commission disagrees with this approach. As indicated earlier, OPTA together with the Nma published a working document on reasonable rates of return in which this question is dealt with. By relating the WACC to the enterprise's market value, the required rate of return of an enterprise would become too dependent on the incidental stock market price of an enterprise. In that case, an enterprise would be allowed a higher profitability exclusively because of a higher stock market price, thus a higher market value of the enterprise. In this way, according to OPTA and NMa, the WACC method would in principle be used incorrectly. As a general rule, determination of the capital employed should be based on the book value, whereby the choice of the valuation principles is naturally still important.

Regarding the choice of valuation principles, in its pro forma annual report for 1997 of Koninklijke KPN NV (i.e. the new telecommunications company that was created after Koninklijke KPN NV was split up), KPN Telecom made the following comment: "In the [...] consolidated balance sheet and the [...] consolidated profit and loss statement, the valuation or determination of results took place by way of historic cost accounting. The differences in capital and results would be negligible if current cost accounting were used to draw up the valuation and determination of results [10]." The Commission, too, does not find it likely that the choice of replacement value or historic costs for determination of the costs and book value would result in any significant differences in the present case. In view of the foregoing considerations, the Commission is of the opinion that the calculation of the WACC should be related to the book value allocated to the different services via the existing cost allocation system (for which historic cost accounting was chosen) in order to determine the profit margin that may be passed on in the tariffs in addition to the costs.

8.6.3 Capital employed by KPN Telecom

The capital invested in the assets of KPN Telecom is the starting point for calculating the reasonable rate of return. The item 'deferred tax assets' is part of these assets. This is a (future) claim on the tax authorities for corporation tax, originating on 1 January 1996 with the repeal the VAT exemption on telecommunications concession services. The result of this was that the VAT component included in KPN Telecom's assets was written off at the expense of the equity capital. The write-off of the assets all at one time was, however, not accepted by the tax authorities, through which a difference arose between the tax and the commercial valuation of the tangible fixed assets of KPN Telecom. Because the tax profits to be made in the coming years will be lower than the commercial profits as a result of the higher tax depreciation, the taxes actually due will be lower than the commercially calculated taxes. Part of the deferred tax claim is released each year as a correction of the amount calculated for tax purposes.

The question here is whether it is acceptable to include this tax claim in the capital base for the calculation of the reasonable profit margin. Is there an actual asset item and if so, is this latent claim on the tax authorities of use for the provision of KPN Telecom's services? With respect to the first question, it should be noted that, in general, it is economically acceptable to include the item deferred tax assets in the balance sheet. This was done in the annual accounts pursuant to the articles of association of Koninklijke PTT Nederland N.V. for 1997, and these annual accounts received an unqualified audit opinion.

To answer the second question, utilization in the process of providing services as a criterion to include them or not in the capital base, advice was requested from Prof. Van Hoepen (Deloitte & Touche Registereraccountants) and Prof. Beckman (Stibbe Simont Monahan Duhot). During the analysis, a look was taken at the way in which the deferred tax assets originated. They came to the conclusion that the deferred tax assets should be included in the capital base. They give the

[10] See p. 73 of the annual report.

following reasons for this. KPN Telecom does not have any accounting discretion to include or not include a deferred tax claim in the commercial annual accounts, because it can reasonably be expected that in the coming years, KPN Telecom will make a tax profit and the deferred tax claim will certainly be realized as a result of lower corporation tax being due. Furthermore, they are of the opinion that the answer to the question whether or not the post is utilized in the process of providing services is not relevant to whether or not it is included in the capital base. In addition, the investments in connection with this item are made for the purpose of providing services. The item did, after all, originate as a result of the abolition of the VAT exemption for concession services supplied by KPN Telecom. Because the depreciation of the assets did not have tax consequences, a temporary difference arose between the commercial book value and the book value for tax purposes. In writing off the assets at the expense of the equity capital, account was taken of the lower amount of corporate tax to be paid on the write-off via the higher tax depreciation (resulting in a lower profit).

The deferred tax asset should be considered a forecast compensation to be received in the future which will be effected by the payment of less corporation tax during the rest of the life of the tangible assets. Therefore, this claim can rightly be considered part of the investments for the benefit of the voice telephony service.

9. Other aspects of cost orientation

9.1 Discounts

9.1.1 Introduction

In a provisional assessment of KPN's discount arrangements for the telephone service, the Commission took the position that discounts, just like the other telephone tariffs, should in principle be cost oriented. Discounts, the Commission decided, are permissible, provided they are based on costs.
The Commission based its decision partly on the ONP Voice Telephony Directive (95/62/EC) [11]. As a result of this provisional decision, KPN Telecom was invited to substantiate its discount arrangements quantitatively with cost savings. Since KPN Telecom could not demonstrate any cost savings, OPTA allowed KPN Telecom to offer discounts that were not directly based on savings on costs, but that could be traced to imbalances in the tariff structure (the so-called deficit margin model??). In this model, frequent callers may be given a discount after a certain number of call minutes, because they have contributed sufficiently to the deficit on the access network. From calculations by OPTA, it appeared that this discount may not exceed 23%. Since the re-balancing of the telephone tariffs on 1 July 1998, a maximum percentage of 10% has applied. This was the basis for the Commission's decision of 6 April 1998 in which KPN was instructed to terminate certain discount arrangements. However, until the cost orientation of the telephone tariffs has been assessed, KPN Telecom will be allowed to continue offering the discount arrangements to existing customers. KPN Telecom and VersaTel have submitted notices of objection to this decision. The Commission is expected to give a decision on their objections at the end of September 1998. The Commission will handle this opposition procedure separately from the assessment of the telephone tariffs. Any gradual insight gained through this assessment will be incorporated into the decisions on the objections.

9.1.2 Consultations

During the consultations on the assessment of the telephone tariffs, the OPTA Commission also asked interested parties for their views on OPTA's standpoint with respect to discounts. In summary this standpoint entails, even if the tariffs have been assessed for cost orientation, that discounts will only be permitted if they are based on actual savings on costs. Stated concisely, the reactions of the parties were as follows:

- a number of providers endorsed the Commission's standpoint and find that discounts must be based on savings on costs;
- one party stated that discounts are fairly common on a normal market;
- KPN Telecom stated that as a general rule, discounts should also be possible for other business reasons than exclusively on the basis of a difference in costs. For example, to stimulate efficient use of the network. If discounts can be justified by objective arguments, it is not clear how

[11] See especially Ground 30 of European Parliament and Council Directive 95/62/EC of 13 December 1995, no. L 321/6.

competition could be disturbed. Supervision of discounts should therefore only be based on the generally applicable rules of competition. Being able to give discounts is essential to KPN Telecom. Without this possibility, KPN would be rendered powerless, according to KPN Telecom.

9.1.3 The OPTA Commission's reaction

The OPTA Commission finds that its original standpoint must now be revised for a number of reasons:

- In the first place, the re-balancing of the telephone tariffs on 1 July 1998 has led to a more gradual profit margin per service. The possibility to give discounts on the basis of the deficit margin model has been considerably reduced because of the re-balancing. If a reasonable rate of return on the access network has also been determined, the deficit margin model will completely cease to be a justification for giving discounts. This would mean that discounts could only be given on the basis of actual savings on costs;
- When the cost orientation of the telephone tariffs has been assessed, it will no longer be possible to finance discounts from any excess profits. In this connection, the Commission understands excess profits to mean profits ensuing from a higher rate of return on invested capital than the Commission designates as reasonable in this decision;
- The consideration in the ONP Voice Telephony Directive (95/62/EC) that discounts must comply with the principle of cost orientation has been deleted from the new Directive. In the new ONP Voice Telephony Directive (98/10/EC) [12] it is stated that the easing of certain obligations with respect to tariffs *could* be possible as soon as the desired objectives have been achieved through the introduction of competition.

Based on the foregoing, the OPTA Commission finds that there is a reason to somewhat expand the possibilities of KPN Telecom to give discounts. In the Commission's opinion, the extent of this depends on the degree of competition in the different market sectors. Even if it cannot be shown that discounts are actually based on savings on costs, it could be so that in specific cases a lower profit margin would be satisfactory. On markets where there is full competition, it is customary to give such discounts. Depending on the degree of *de facto* competition in the various market sectors, KPN Telecom should now be offered the possibility to give certain discounts that cannot be based on cost savings. In the Commission's opinion, account should be taken of the often dominant position of KPN Telecom in the various market sectors in order to protect the interests of third parties against possible abuse of this position.

It is generally assumed that as the volume of traffic increases, the average costs of providing the service will decrease. These savings on costs are difficult to quantify in practice. In view of the presumed relationship between volume of traffic and average costs, the Commission finds that traffic volume in itself is an acceptable criterion on which to base discounts. In the Commission's opinion, another ground for the justification of discounts is the intention to stimulate demand (traffic). The price elasticity of demand plays an important role. In addition, the Commission finds that, as a general rule, discounts can also be justified to which all users, including consumers, have a claim (e.g. selective number discounts such as *Friends & Family* of British Telecom). In practice, such a

[12] See especially Ground 14 of European Parliament and Council Directive 98/10/EG of 26 February 1998, no. L 101.

discount (from which all users can profit) can have the same effect as a reduction of the generic tariffs. Such discounts can therefore be considered as a specialization of the existing tariff structure: instead of a generic tariff for a certain type of call, both higher and lower tariffs are charged which on average lead to the same result.

9.1.4 Starting points

In the future assessment of discounts, the Commission will proceed from the following starting points:

- Discounts are not permitted if they can be expected to result in the restriction of competition in the relevant market sector;
- Discounts based on demonstrable savings on costs are permitted in principle;
- Discounts that are not based on demonstrable savings on costs are permitted to a limited extent, depending on the degree of *de facto* competition in the relevant market sector, providing this does not restrict competition.

The Commission will outline below the way in which discounts will be assessed in actual cases.

9.1.5 Outline of the assessment

The OPTA Commission has given a broad indication of the review criteria to be used for the assessment of discounts. First of all, the degree of competition in a certain market (sector) will be determined. The effect of a discount on competition will then be examined. On the basis of these criteria, the Commission will review each discount arrangement beforehand with respect to possible disruptive consequences for the competitive relations on the relevant market. The assessment will thus take place on a 'case by case' basis, in accordance with the provisions of the BART. In this way, discounts can be assessed dynamically, depending on the current degree of competition in the different market sectors. The Commission intends in any case to assess each reported discount arrangement on the following aspects:

a) Discounts that are based on demonstrable savings on costs are in principle permitted.

b) Discounts that are based on demonstrable savings are permitted to a limited degree, depending on the degree of *de facto* competition in the relevant market sector and if they do not restrict competition. The Commission will use the total average costs for each service that have been determined on the basis of fully allocated costs, hereinafter referred to as the FAC method. In section 9.1.6 the Commission's opinion will be given on the extent to which this type of discounts may now be given in the various market sectors.
   In connection with the new method of assessing discounts in the United Kingdom, KPN Telecom has proposed permitting discounts up to the level of the direct attributable costs. For the time being, the Commission cannot agree with this. The Commission recognizes that in a fully competitive market, it might be acceptable from a competitive point of view to allow discounts going downwards to the level of the direct attributable costs, hereinafter referred to as the DAC method. In a market where competition has not been fully realized, under certain conditions such discounts can be anti-competitive. The basis proposed by KPN Telecom for the assessment of

discounts would now make it possible to give extremely high discounts which are likely to be anti-competitive under the present circumstances. The Commission is of the opinion that, certainly now in the present initial stage of the development of competition, the direct attributable costs are not the appropriate lower limit for giving discounts. Furthermore, the Commission is of the opinion that the FAC method is a transparent, practicable method. It interfaces seamlessly with the system for the allocation of costs and income to the telephone service that has already been approved by the Commission.

Greater flexibility in the assessment of discount should remain limited, according to the Commission. At this time it is premature, in view of the market development, to give KPN more freedom with respect to giving discounts than the permitted lower limit. As competition increases, the possibilities to give discounts will eventually be more relaxed.

The lower limit maintained by the Commission is in agreement with the development of discounts in the comparable initial stage on the telecommunications market in the United Kingdom. The possibility for British Telecom (hereinafter: BT) to give discounts on the published tariffs is laid down in Condition 17 of its Licence. Condition 17A was added to BT's Licence in 1991 in order to give BT more flexibility in differentiating its tariffs. Discounts must also comply with the 'Guidelines' published by OFTEL and to which BT has conformed. Discounts on the published tariffs could be increased from 1991 to August 1995 in steps of 20% up to the level of the fully allocated costs. So BT was only allowed to give full discounts on published tariffs as from August 1995 up to the level of the fully allocated costs. In 1995, the conditions under which BT was allowed to give discounts were evaluated. The conclusion at that time was that there was not enough permanent competition on the telecommunications market to relax the aforementioned Guidelines. Only in 1997 were the 'Fair Trading Guidelines' laid down on the basis of which BT may give discounts to the level of the direct attributable costs. Experience teaches that at present, OFTEL allows discounts to the level of the direct attributable costs, although BT has never taken full use of its discretion.

c) For each reported discount, the Commission will examine whether or not certain users (groups) are harmed as a result of the discount. In the new ONP Voice Telephony Directive 98/10/EC) it has namely been taken into consideration (Ground 14) that private users should not subsidize the discounts of business users. It follows from this that the rates of return incorporated in the general tariffs should not be made higher only so that they can be used to give discounts to specific business users.

d) The Commission also reviews whether the discount is intended for a sufficiently broad group of users. If it should appear that the discount is only directed towards a limited and select number of large-scale users, it will soon become likely that this would restrict competition. Therefore, the Commission will especially review the entry conditions of the discount scheme. It is also striking that the current discount arrangements are directed exclusively towards business users and that discounts that are especially meant for consumers are never offered by KPN Telecom. This confirms the fact that there is little actual competition on the consumer market.

e) Depending on the extent of competition in a certain market sector, each reported discount will be reviewed on bundling aspects. The Commission distinguishes different forms of bundling. The main ones are the bundling of different types of traffic in a discount arrangement and the bundling of traffic from different locations in a discount arrangement.

   In the first place, discounts relating to the traffic from different locations, whether or not from different users, can restrict competition. Because the users lose the discount (which they receive jointly) if they change over individually to another provider, this discount must be considered an obstacle to changing over. This form of bundling will therefore only be permitted by the Commission if it is based on demonstrable savings on costs. These savings on costs will often be in the field of the traffic-independent costs. On the basis of the available information, there seems to be little justification in terms of savings on costs to allow such discounts.

   Furthermore, the Commission finds that the bundling of traffic coming from a market sector where there is hardly any competition with traffic from a market sector where there is competition should not be permitted at present. This has harmful consequences for the market participants and it hinders the development of the new market. After all, a competing provider only operating in a market sector is unable to offer a similar type of bundling and is therefore at a disadvantage. A discount must therefore relate to an individual service.

f) Finally, the Commission will also review discounts for loyalty discount aspects. Loyalty discount is a concept from competition law [13]. These are additional discounts over and above a standard volume discount that are given to users. These discounts are often linked to a percentage of the total purchase of a customer and are usually paid retroactively. Loyalty discounts can take on different forms. The most simple version is a discount given retroactively whereby the supplier gives the user an additional discount based on the volume purchased by the user in the preceding period. This period can also be longer. The Futures options, which were abolished by KPN Telecom on 1 July 1998, contained aspects of loyalty discounts. The Commission is of the opinion that such discounts cannot be permitted.

9.1.6 Market forces in the different market sectors

As already indicated, the Commission is of the opinion that discounts that are not based on savings on costs may be permitted to a certain extent, depending on the degree of *de facto* competition in the relevant market sector. The Commission has already dealt extensively with the last-mentioned in Section 6. Below, the Commission will examine the extent of the maximum discounts which in its opinion can be given in the different market sectors. It will also indicate, according to current

[13] In the Suiker Case(ECJ, 16 December 1975, Suiker Unie v. Commission, ECR 1663 [1975], the European Court of Justice designated loyalty discounts provided by an enterprise with a dominant position on the market as abuse of a dominant position. Such discounts are thus different from (ordinary) volume discounts, which are based exclusively on the quantity purchased. Loyalty discounts can be considered a reward for the fact that a customer does not purchase from anyone else. In this way, the customer is actually hindered from going to another supplier. In competition law this is considered irrational economic behaviour of the supplier, from the point of view that in a market of full competition, an enterprise must base its price on underlying costs plus a profit margin.

insights, how the maximum discount could develop in the future.

As far as international calls are concerned, the Commission has determined that there is a predominantly competitive market. In view of this, the Commission takes the position that over a period of two years, in equal steps, KPN Telecom may raise discounts to the level of fully allocated costs. That is, in the first year, discounts may be given up to 50% of the difference between the standard tariff and the fully allocated cost. It goes without saying that this can only be permitted after KPN Telecom has provided insight into the costs and income for each international destination. At this time, there is no effective competition on national calls. The Commission assumes that this will be different in the course of the years. In view of this, the Commission takes the position in principle that, if fully cost oriented tariffs for national telephone service are fixed, KPN Telecom may give discounts which can develop in 4 years, in equal steps, to the level of the fully allocated costs. The Commission finds these stages necessary in connection with the present competition situation. In short, it comes down to the fact that in the first year that cost oriented tariffs are fixed, discounts may be given to a maximum of 25% of the difference between the standard tariff and the fully allocated cost.

In the opinion of the Commission, there is still no effective competition on local calls. Nor is it foreseeable in the short term. The Commission finds that discounts may only be given on the basis of demonstrable savings on costs.

With respect to fixed-to-mobile calls, the Commission assumes that competition for these calls will increase in the coming years. Therefore, once again, the Commission will maintain the same starting point as for national calls. After cost oriented tariffs have been fixed, discounts may develop in 4 years to the level of the fully allocated costs. In other words, in the first year discounts may be given of up to 25% of the difference between the standard tariff and the fully allocated cost.

The Commission's objective is to evaluate the aforementioned discounts in the different market sectors annually or earlier if new developments or insights give reason to do so. Among other things, the basis for discounts and the degree of competition in each service and/or market sector will be assessed. The review framework will be adjusted now and then if necessary.

9.1.7 Current discount arrangements

In the preceding sections the assessment framework was outlined in which the Commission will review discount arrangements after cost oriented tariffs have been fixed. At this time, KPN Telecom offers the discount arrangements WorldLine, CountryLine and Corporate Plan One. As a result of the instructions of 6 April 1998, KPN may offer WorldLine to all customers; in the context of a transitional arrangement, CountryLine and Corporate Plan One may only be offered to existing customers. The discount arrangements were most recently amended when the telephone tariffs were changed on 1 July 1998. Below, the Commission will list the most important characteristics of these discount arrangements.

WorldLine
• Discount on originating international, national and fixed-mobile calls; • Discount percentage: from 3% to 10%; • Threshold: from NLG 500 up to NLG 125,000 every two months; • The following count towards reaching the threshold, but no discount is given on: - additional facilities; - telephone traffic via green numbers and paid service numbers; • Can be combined with Corporate Plan One.

CountryLine
• Discount: on calls to 3 frequently called international destinations whereby national calls can also be designated as a destination; • Discount percentage: 4%; • Threshold: from NLG 500 every two months; • The following count towards reaching the threshold, but no discount is given on: - additional facilities; - cross-border calls; - fixed-to-mobile calls; - calls via green numbers and paid service numbers; • Cannot be combined with other discount arrangements.

Corporate Plan One
• Discount: on originating national and international calls from different locations of a user or group of users, after deduction of discounts already given on the basis of other discount arrangements; • Discount percentage: fixed percentage of 3%; • Threshold: from NLG 180,000 a year; • Can be combined with other discount arrangements; • Four-monthly subscription costs: NLG 935 excluding VAT by contract and NLG 70 excluding VAT for each location.

In Part 10, the Commission will indicate how the current discount arrangements are assessed in the light of the assessment framework outlined above.

9.2 ISDN

9.2.1 Introduction

In the consultation document, the Commission brought two questions regarding ISDN up for discussion. The first related to whether or not the costs and income of ISDN and the analogue telephone service (PSTN) should be separated if the cost orientation of the tariffs is assessed. The second question concerned the provision by KPN Telecom of ISDN (possibly) at a loss. The Commission will briefly explain its position on both matters below.

The Commission finds that the additional costs of ISDN should be charged to ISDN users and not (partly) to the users of the ordinary telephone service. This is an argument for separation of the costs and income of both services. Another argument is the fact that KPN Telecom would have an unacceptable competitive advantage with respect to its competitors if the costs of ISDN could be charged on virtually without limits to the users of the ordinary telephone service. The Commission has also examined the question whether the separate assessment of both services would be at the expense of technological innovation by KPN Telecom. The Commission does not foresee any obstacles; it is customary to finance innovations and the concomitant start-up losses out of the existing cash flow of an enterprise. The costs or start-up losses in question are charged to the profits and not passed on in the costs of other services or products. A totally different approach considered by the Commission is to treat ISDN as the natural successor of the analogue telephone service. The Commission now sees insufficient reason to do so. First of all, ISDN is attractive to consumers mainly because of Internet and other data applications in combination with the possibility to make telephone calls. Secondly, the number of ISDN subscribers is still too small in comparison with the number of PSTN subscribers. Based on the aforementioned considerations, the Commission concluded that it would not be desirable to combine the costs and income of ISDN with those of the analogue telephone service.

A related question is whether, in view of the cost orientation principle, the actual costs of ISDN should at present be passed on in the ISDN tariffs or whether any losses should be charged to the total profit. In the consultation document, the OPTA Commission took the position that start-up losses in the initial stage of the life cycle of ISDN are acceptable, provided there are adequate prospects of a rate of return that will eventually be able to make up the start-up losses.

9.2.2 Reactions

Most of the parties agree with OPTA's standpoint that the costs and income of ISDN and the analogue should be separated. KPN Telecom, however, does not agree. KPN Telecom argues that ISDN is a voice telephony service offered on the same market as the analogue telephone service. If OPTA chooses technique-dependent supervision, the introduction of new techniques would be hindered. OPTA's position would do serious damage to innovation in the telecom sector. The measures of the European

Union are pre-eminently geared to the introduction of ISDN as the successor of analogue voice telephony services, according to KPN.

The Commission has the following comments in this regard. The difference between the analogue telephone service and ISDN is primarily in the connection. By replacing the original line card on one end of the access line by an ISDN line card and installing a specific termination point (NT-1) at the other end, an analogue connection is transformed into a digital connection. However, 'upgrading' the access line enables many more applications to be used than just the telephone service. For instance, ISDN is outstandingly suitable for data applications, e.g. use of Internet. Furthermore, with ISDN combined use is possible of both the telephone service and the data service. It is now known that the number of KPN Telecom's ISDN subscribers increased in1997 from approx. 100,000 to approx. 280,000. KPN Telecom predicts an important growth in 1998 as well. As early as July, KPN Telecom announced a (realized) number of 500,000 subscribers. Although there has been a substantial increase in the number of ISDN subscribers, the Commission finds that for users who only want to make telephone calls, for the time being ISDN is not a reasonable alternative to the analogue telephone service. The Commission acknowledges that ISDN could be considered a telephone service, among other things, but it has so many other possibilities in addition (data applications, second line) that the service cannot be equated with the analogue telephone service.

Also of importance is the ISDN Recommendation of the European Council [14], that partly serves to facilitate the harmonized introduction of ISDN in the European Union. It includes the preconditions within which this would have to take place. In Article 12 of the Recommendation it is stated "that the tariffs shall be transparent, based on objective criteria [...] and in principle cost oriented."

In view of the foregoing considerations, in assessing the cost orientation of the tariffs, the Commission will assess the costs and income of ISDN and those of the analogue telephone service separately.

The other parties who reacted to the consultations do not agree with OPTA's standpoint that KPN Telecom should, if necessary, provide ISDN under the cost price. They find that ISDN has now passed the development state and can no longer be considered as a new service. If KPN Telecom were allowed to provide ISDN under the cost price, that would result in unfair competition. KPN Telecom can compensate the losses from the profits on the analogue telephone service, while other providers cannot. In addition, ISDN is pre-eminently a system that other providers also wish to supply. On the other hand, KPN Telecom is of the opinion that ISDN should be considered to be the natural successor of the analogue telephone service. As long as ISDN is considered to be the natural successor of the analogue telephone service - and therefore the costs and income of both services are combined - there is no question of ISDN being offered under the cost price. Furthermore, KPN Telecom offers ISDN migration packages which are intended to lower the threshold for changing from analogue to digital. According to KPN Telecom, the end user will also profit from this.

[14] Council Recommendation 92/383/EEC of 5 June 1992, no. L.200.

Partly as a result of the input during the consultation, the Commission has seen fit to adjust its standpoint. Given the number of years that ISDN has already been provided, since the mid 80s and on a large scale since 1994, the Commission finds that it can no longer be maintained that ISDN must be considered as a new service in the introductory stage of its life cycle. Moreover, provision by KPN Telecom of ISDN under the cost price would make it virtually impossible for other providers to provide this service at a profit. The fact that the Commission cannot agree with KPN's argument that ISDN should be considered the natural successor of the analogue telephone service has already been elucidated. The Commission is of the opinion that it is no longer justifiable at this time for KPN Telecom to provide ISDN under the cost price. The Commission will deal separately with the consequences of this for the ISDN tariffs.

9.2.3 Consequences for the ISDN tariffs

From the figures presented by KPN Telecom for the costs and income of ISDN, it appears that the service is still being provided at a loss. This applies to both the effecting of an ISDN connection and the subscription. The OPTA Commission is of the opinion that, in view of the interests of other providers, KPN's ISDN tariffs should in principle be brought up to a cost-effective level, preferably with a minimum rate of return earned. This could mean, however, that the monthly rental tariff would have to increase by
[ ] [15]. The existing ISDN subscribers would have to pay much more and might even consider cancelling their ISDN subscriptions. It is also true that many of these users may have subscribed to ISDN in order to use ISDN terminal equipment, on the assumption that from then on they would be able to use the ISDN service for the applicable tariff. In summary, full, immediate application of the requirement of full cost orientation to the ISDN tariffs could mean that ISDN subscribers would suffer disproportional consequences.

Apart from that, the difference between the monthly rental of PSTN and ISDN deserve further consideration. Until 1 July, there was a difference of NLG 22.75 between the tariffs. This apparently did not prevent most new ISDN users from changing over. For the extra money, an extra line was provided as well as more possibilities for data applications such as Internet access. On 1 July 1998, KPN Telecom changed the telephone tariffs. The PSTN monthly rental of the Belbasis package was increased by 27.2% (from NLG 27.20 to NLG 34.60) and the call charges were lowered. This is the so-called rebalancing of the tariffs. This meant that the costs of the PSTN connection were fully passed on in the monthly rental and a margin was no longer included in the call charges to cover the connection costs. However, this change did not affect the ISDN tariff of the Belbasis package. ISDN users were, however, able to profit from the lower call charges. These are the same for ISDN and PSTN. With respect to the ISDN service, there was a one-sided 're-balancing' whereby the monthly rental was not raised. Partly for this reason, ISDN has become relatively more attractive with respect to the analogue telephone service, moreover at the expense of the users of this service.

Based on the foregoing, the OPTA Commission finds that an increase in the monthly rental of ISDN is desirable, in principle up to a cost-effective level. However, if it should appear that the ISDN monthly

[15] Passage designated by KPN Telecom as confidential business information.

rental of the Belbasis package (incl. VAT) must be increased by a larger percentage than that by which the PSTN monthly rental of the Belbasis package (incl. VAT) was increased on 1 July, the increase should be introduced in stages. The first step should be an increase of 27.2% in the ISDN monthly rental, followed by the remaining increase one year later, at least in so far as it is necessary at that time.

In accordance with the 'Notice' recently published by the European Commission on the application of the rules of competition to access agreements in the telecommunications sector (see also § 5.5), the Commission also considers it desirable to stipulate that in fixing such tariffs, in any case the total marginal costs of providing ISDN connections, calculated over a period of three years, are covered. KPN Telecom will have to show that it has complied with this precondition.

For the rest, the standpoint of the Commission will not cause the ISDN tariffs of KPN Telecom to deviate specially from the tariffs charged elsewhere, particularly in the European Union.

10. Decision on the cost orientation of the tariffs

10.1 Introduction

In the preceding parts, the standards were indicated to be used by the OPTA Commission in assessing the cost orientation of the different tariffs. It was also indicated under which conditions the Commission would consider the tariffs to be sufficiently cost oriented. Now is the time to compare the current tariffs in order to form an opinion on the degree of cost orientation. In so far as the Commission is of the opinion that some are not cost oriented, KPN Telecom will be given the opportunity to adjust them. Given the time needed by KPN Telecom to implement the tariff changes, the new tariffs (assessed for cost orientation) should take effect as of 1 January 1999.

On 1 May 1998, KPN Telecom presented the Commission with a survey of the costs and income allocated in the financial year 1997 to the different components of the telephone service. There is more than a year between the time when the new cost oriented tariffs took effect and the period to which the figures relate. Since then, however, changes may have taken place in the tariffs, costs and numbers (traffic volumes and subscribers). The Commission finds it reasonable that this is taken into consideration as far as possible in the assessment. Effects that need to be taken into account are:

- Essential changes in tariffs, costs and numbers during 1997 that are only partly expressed in the survey of costs and income as of the end of 1997 (e.g. introduction of tariffs per second on 1 July 1997);
- Essential changes in tariffs, costs and numbers up to now in 1998, such as the re-balancing as of 1 July 1998 and the reduction of the mobile tariffs in April;
- Possible essential changes in tariffs, costs and numbers up to 1 January 1999 (possible decrease in PSTN subscribers and increase in ISDN subscribers).

Some changes are easy to quantify objectively (such as the re-balancing), and others less easy (such as the forecast for the rest of 1998).

The Commission's decision on the tariffs of the different services is given below. The Commission has made every effort to take account of circumstances that may have changed.

10.2 The OPTA Commission's decision on the tariffs

PSTN Belbasis

a) *the once-only connection charge*

In Part 8, the Commission determined on the basis of the WACC method that a rate of return of 13.2% is reasonable on the capital invested in PSTN connections. More particularly, the Commission refers to the table in § 8.5. For the activities necessary to connect a user to the PSTN network, the Commission therefore considers a rate of return of 13.2% reasonable.

[ ] [16] .The Commission therefore does not consider the tariff to be adequately cost oriented.

The Commission requests KPN Telecom to make a proposal for reduction of this tariff to the level at which a rate of return of 13.2% is earned.

b) *the monthly rental*

With reference to what has already been remarked under item a., the Commission considers it reasonable to pass on a 13.2% rate of return on the capital invested in PSTN connections in the monthly rental tariff. On the basis of the figures for 1997 and taking account of the allocation of the costs and income of the directory listing service to the PSTN and ISDN subscriptions (as proposed in § 7.1), the Commission concludes that KPN Telecom earns a rate of return of [
] [17].
The Commission therefore finds the tariff to be adequately cost oriented. In the Commission's opinion the tariff would no longer be cost oriented if KPN Telecom were to increase the re-balanced subscription tariff to a level whereby a rate of return of at least 15% is calculated in, as argued by KPN Telecom in the memorandum of consequences.

c) *local call charges*

In Part 8, the Commission argued that the WACC for local calls is the same as that for the access network. The Commission therefore considers 13.2% rate of return on local telephone service to be reasonable.
[

] [18] Therefore, the Commission considers the connection tariffs for local calls to be inadequately cost oriented.

Partly in view of the analysis in Part 6 (particularly § 6.5), the Commission finds that with regard to local calls, the interests of users should prevail over those of the competitors. In the Commission's opinion, the interests of providers with their own access networks have been sufficiently met by the re-balancing of the monthly rental and call charges on 1 July 1998, through which an important barrier to the development of competition in infrastructure (and thus also in local calls) was removed. The Commission therefore requests KPN Telecom to make a tariff proposal for new tariffs for local calls in which a 13.2% rate of return is passed on.

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[16] Passage designated by KPN Telecom as confidential business information.

[17] Idem.

[18] Idem.

d) *national call charges*

On the basis of the WACC calculation in Part 8, the Commission considers a 14.0% rate of return on national calls to be reasonable. [ ] [19] The Commission therefore finds that the tariffs for national calls are not adequately cost oriented.

The Commission is now confronted with the question of the consequences to be attached to the conclusion that the connection tariffs for national calls are inadequately cost oriented. Reduction of the tariffs to a level at which a 14.0% rate of return is passed on would result in little difference between the end users' tariffs and the interconnection tariffs [20] . For other providers, the difference between these tariffs is, however, of essential importance. It determines to a great extent the margin at which they can provide their services to their own clients. Particularly in the next few years this will be all the more true, as competitors often need to use KPN Telecom's network, not only for terminating access but also for originating access via carrier selection. At present, this does not only hold true for providers that mainly supply traffic via carrier selection, but also for providers that supply originating access to their own subscribers via their own access lines. In general, the traffic volume generated by this last category of providers, at least in the short term, is still insufficient to be able to offer their customers originating access at lower costs than the carrier select tariffs of KPN Telecom. Providers with their own access networks will be able to profit more and more in the event of an increased traffic volume. However, this will take time. In the Commission's opinion, tariff reduction all at once to a 14% rate of return could have undesirable consequences for the development of competition in this market sector. Therefore, the Commission considers it advisable to allow the tariff reduction for national telephone service to a 14% rate of return to take place gradually. Partly in view of the forecast positive consequences for competition of the introduction of carrier pre-selection in 2000, for the time being the Commission finds a period of three years acceptable and reasonable. The Commission invites KPN Telecom to make a proposal for the phased-in reduction of the national call charges. In the light of the foregoing, this must in any case, include an appropriate first reduction of the tariffs as of 1 January 1999. KPN's proposal for the next steps will be included in the price cap model to be developed (see Part 11).

The Commission finds that, in the long run, this will serve the interests of end users, and in particular also consumers. It is conceivable that a too drastic reduction of the tariffs in question would destroy the beginnings of competition in this market sector. It would mean that the options for users will remain limited in the long term. Nevertheless, users will already profit in the short term from the phasing in that has been started: as of 1 January 1999, KPN Telecom must take the first step towards lower tariffs for national calls.

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[19] Passage designated by KPN Telecom as confidential business information.

[20] This concerns the interconnection tariffs that KPN Telecom must charge as of 1 July 1998 on the basis of the EDC decision of the Commission (Official Gazette of 29 July 1998, no. 141).

e) *fixed to mobile call charges*

In § 6.4 the OPTA Commission took the position that for fixed-to-mobile calls, the same profit margin (in absolute terms) is reasonable as for traffic on the fixed network. [

] [21] Furthermore, account should also be taken with the continued growth of the traffic volume and the possibly lower 'termination fees' through which profitability will only improve. Therefore, the Commission is of the opinion that the fixed-to-mobile call charges are not adequately cost oriented.

The Commission requests KPN Telecom to make a proposal for reduction of the fixed-to-mobile call charges so that the profit margin (in absolute terms) is not higher than for national calls on the fixed network. The Commission will inform DG IV, which had already designated the fixed-to-mobile call charges of KPN as too high, of this decision.

PSTN Belbudget

f) *the tariff package as a whole*

As stated in § 7.2, in the Commission's opinion KPN Telecom may also offer other tariff packages in addition to a re-balanced tariff package. This is on condition that these packages do not result in a restriction of competition. At present, the Belbudget subscription is only attractive to users who mainly want to be accessible and make few calls themselves. The Belbudget subscription can play an important role particularly for users in the lower income groups. Because of the low subscription tariff, it will be very difficult for other providers to compete with KPN Telecom for the group of Belbudget subscribers; whereby the question also arises whether this group of infrequent callers would be interesting to other providers in the beginning stage of competition development. To the extent that this is indeed the case, the Commission finds that with respect to low-threshold access to the telephone service, the interests of some consumers should prevail over the interests of other providers in also being able to competing with KPN Telecom for this market segment. Therefore, the Commission sees no reason to intervene in the Belbudget tariffs.

PSTN Belplus

g) *the tariff package as a whole*

[21] Passage designated by KPN Telecom as confidential business information.

The OPTA Commission finds that KPN Telecom should be able to provide the Belplus subscription, just like the Belbudget subscription, provided this does not restrict competition (see § 7.2). The Belplus subscription can be considered a type of discount arrangement for consumers. For a monthly subscription tariff of NLG 6, consumers receive a 25% discount on calls in the off-peak period. Because the discount only applies to the off-peak period, this is hardly attractive at all to business users (who mostly call during the peak period). The grounds for justification of this type of discount can be found in the extra traffic volume generated by this. This Belplus subscription in its present form does not restrict competition, according to the Commission. Therefore the Commission sees no reason to intervene in the Belplus tariffs at this time.

ISDN Belbasis

h) *the once-only connection charge*

KPN Telecom incurs losses in providing ISDN connections for users. This makes it more difficult for other (potential) providers to enter the market. The Commission's opinion is that providing ISDN connections under the cost price seriously hinders competition on the market for ISDN connections. As long as this service is offered at less than the cost price, the Commission considers it to be inadequately cost oriented.

The Commission requests KPN Telecom to make a proposal for a cost-effective tariff.

i) *the monthly rental*

[ ] [22] The Commission is of the opinion that, in principle, KPN Telecom may not offer ISDN under the cost price and therefore considers the tariff to be inadequately cost oriented.

The Commission invites KPN Telecom to make a proposal for a cost-effective monthly rental. If, in order to achieve this, the tariff has to be raised by more than 27.2%, in connection with the protection of the existing ISDN subscribers, the Commission would consider a tariff increase of this size adequate in the first instance to bring the tariff to a cost effective level step-by-step. The above-mentioned percentage agrees with the percentage by which the PSTN Belbasis monthly rental was raised on 1 July 1998 when the tariffs were re-balanced, when the ISDN Belbasis monthly rental was not affected.

ISDN Belplus

j) *the once-only connection charge*

[22] Passage designated by KPN Telecom as confidential business information.

The Commission has the same opinion on this as formulated in item h.

k) *the monthly rental*

The monthly rental tariff of ISDN Belplus is NLG 6 higher than that of ISDN Belbasis. The comments of the OPTA Commission under i. apply equally to the monthly tariffs of ISDN Belplus. The Commission now considers this tariff to be inadequately cost oriented.

The Commission requests KPN Telecom to make a proposal for adjustment of the monthly rental in accordance with the stipulations under i.

0800/090x services

l) *connection charge and subscription charges*

KPN Telecom earns an adequate rate of return on the connection charge and subscription charges together. The tariffs on the level of both services are adequately cost oriented.

m) *terminal access conveyance charges for 0800/090x traffic*

KPN Telecom earns a sufficient rate of return on the joint 0800/090x traffic. According to the Commission, the tariffs are 'overall' adequately cost oriented.

n) *discounts*

The discount percentages for last year were lowered from a maximum of 45% to one of 25%. KPN Telecom will have to demonstrate satisfactorily that in giving the maximum discount, the currently applicable conveyance charges must be offered at sufficiently above the fully allocated costs.

Pay-telephones

o) *the call charges*

KPN Telecom incurs losses on the pay-telephones. Since for the time being it is not likely that other providers will turn up that want to operate pay-telephones on a nation-wide scale on public land, the

Commission does not find the tariffs objectionable. In itself, the increase in the tariff for local calls as of 1 September 1998 will result in more cost-effectiveness. The Commission will not object to this. This does not affect the fact that if KPN Telecom should consider bringing the tariffs to a cost-effective level, this might come up against objections from the Minister of Transport, Public Works and Water Management due to possible socially unacceptable consequences. In that case, the Minister would have the instruments relating to universal service available under the regime of the proposed Telecommunications Act.

Discount arrangements

The Commission gives its decision here on the discount arrangement against the background of the assessment framework outlined in Part 9.

p) *WorldLine*

In this arrangement, a discount is given on the total originating traffic to international, national and fixed-mobile destinations. The OPTA Commission finds that the bundling of this type of traffic restricts competition (see also § 9.1.5 under e.). The Commission is of the opinion that the bundling of different categories of traffic in a discount arrangement is not permissible. The same applies to the fact that traffic to additional facilities and green numbers/service numbers counts in determining the applicable graduated discount rates. KPN Telecom must adjust the discount arrangements on these points.

With WorldLine, KPN Telecom gives a discount of at most 10%. With respect to international traffic, the Commission considers a discount of up to 50% of the difference between the standard tariff and the fully allocated cost justifiable in principle, provided KPN Telecom can show that, for each destination, the traffic on which the discount is given is not being provided under the fully allocated cost, also after the discount itself has been deducted (see also § 9.1.6). If no insight is offered into the costs and income per destination, according to the Commission it cannot be ruled out that the tariffs to some destinations are being offered at a loss. From the cost orientation point of view, it cannot be justified that in such a case a discount is given in addition. Until KPN Telecom has produced figures to substantiate the fact that traffic is not being provided under the cost, the Commission will only allow discounts for international traffic that are based on actual savings on costs. Volume discounts on national traffic that are not based on demonstrable savings on costs are not considered justifiable by the Commission as long as connection tariffs for national telephone traffic have not been brought to a fully cost oriented level. Only when that is the case will it be impossible for KPN Telecom to finance discounts from the extra profit margin incorporated in the tariffs up to that time (see also § 9.1.3). When cost oriented tariffs have been determined for fixed-to-mobile traffic, the Commission will find it justifiable to give separate (unbundled) discounts on this type of traffic of, at present, a maximum of 25% of the difference between the standard tariff and the fully allocated cost.

KPN Telecom must terminate the present form of WorldLine as of 1 January 1999 for both existing and new customers. The Commission invites KPN Telecom to make a new proposal for separate

(unbundled) discount arrangements for the different types of traffic. In the light of the decision, the proposed discount percentages must be adequately substantiated by figures.

q) *CountryLine*

With CountryLine, discounts are given on originating traffic to 3 international destinations, whereby national calls can be one of the destinations. In the Commission's opinion, the bundling of these separate types of traffic restricts competition (see § 9.1.5 under e.). The OPTA Commission is of the opinion that the bundling of different categories of traffic in a discount arrangement is not permissible. The same applies to the fact that the expenditure on a number of other types of traffic (see § 9.1.7) counts in determining the applicable graduated discount rate. KPN Telecom must adjust the discount arrangement on these points.

In CountryLine, KPN Telecom gives a discount of at most 4%. Concerning the discount percentages that the Commission now considers justifiable for the different types of traffic, for the sake of brevity the Commission refers to the comments already made above. The statements made in the decision on WorldLine apply equally to CountryLine.

KPN Telecom must terminate CountryLine in its present form before 1 January 1999 for existing customers. It has not been permitted since 21 April 1998 to offer CountryLine to new customers. The Commission requests KPN Telecom to make a new proposal for separate (unbundled) discount arrangements for the different types of traffic. In the light of the decision, the proposed discount percentages must be adequately substantiated by figures.

r) *Corporate Plan One*

This discount arrangement offers a fixed discount of 3% on the total originating national and international traffic of the different locations of a user or group of users. In the opinion of the OPTA Commission, the bundling of traffic from different locations in the context of a discount arrangement will tend to have a competition-restricting effect. Therefore, the Commission finds that such a type of discount can only be allowed if it is based on an actual savings on costs. In the re-balancing of the tariffs on 1 July 1998, KPN provided quantitative substantiation of the maximum discount percentage of Corporate Plan One. This substantiation did not convince the Commission that cost savings amounting to 3% are realized. The Commission finds it plausible that cost savings of at most 1.5% can be realized. These are mainly savings that can be achieved through automatic debt collection. Without further substantiation, the Commission cannot allow a higher percentage.

For existing customers, KPN Telecom must adjust Corporate Plan One in its present form as of 1 January 1999 in such a way that a discount not exceeding 1.5% is given. Since 21 April 1998, KPN has not been permitted to offer Corporate Plan One to new customers. In so far as KPN Telecom is of the opinion that a higher discount percentage can be justified on the grounds of savings on costs, the OPTA Commission invites KPN Telecom to demonstrate this with adequately substantiating figures.

10.3 The legal nature of the decision

Concerning the tariffs which the OPTA Commission finds to be inadequately cost oriented, KPN Telecom is requested to make a tariff proposal in accordance with the Commission's assessment. For this purpose KPN may incorporate essential changes to the tariffs, costs and numbers with respect to the figures for the financial year 1997 that KPN Telecom reported to the Commission (as described in § 1 of this part). If KPN Telecom is not prepared to adjust the tariffs in accordance with the assessment, the Commission will give binding instructions. In so far as KPN Telecom is indeed prepared to do so, the Commission will take a decision for approval of the tariffs proposed by KPN Telecom. This decision as well as the (possible) instructions are susceptible of objection and appeal. KPN Telecom is requested to submit its (substantiated) tariff proposal to the OPTA Commission within four weeks after receiving the decision.

10.4 Consequences for the tariffs

In connection with the problems outlined in § 10.1, the consequences of the OPTA Commission's decision for the tariffs can only be indicated in broad terms for four tariffs:

- the PSTN Belbasis monthly rental is not expected to changed at all (or only marginally);
- the local call charges will be reduced by about one-fourth;
- the national call charges will have to be reduced by the same amount over a period of three years;
- the ISDN monthly rental will probably have to be increased by at most 27.2%.

10.5 Future tariff regulation

In its recent report 'Regulatory reform in the Netherlands' [23], the OECD criticized the switch made in 1997 in the Netherlands from a price cap regime to a rate of return regime. According to the OECD, the latter form of tariff regulation induces undesired behaviour such as overinvesting and exaggerating the costs (p. 19 of the report). The OECD also comments that until 1997, the price cap regime was relatively 'light' compared with that in other countries; while in the Netherlands the tariffs were not allowed to rise more than inflation, under the price cap regime the tariffs in countries such as the United Kingdom and Australia had to be reduced by approx. 7% (less inflation). The OECD also recommends that the Netherlands reconsiders its rate of return regime in favour of a 'light' price cap regime in which room is made for geographical re-balancing of the tariffs (p. 38 of the report).

The OPTA Commission can agree with the main features of these findings of the OECD. Before the OECD report was published, the Commission announced in a consultation document that it was considering whether it would be possible in future legislation to regulate tariffs by way of price caps. According to the Commission, the draft subordinate legislation to the proposed Telecommunications Act also provides that possibility. Therefore, in the future, the Commission intends to regulate tariffs

[23] Rapport van de OECD, nr. DSTI/ICCP/TISP(98)9

by means of long-term tariff agreements with KPN Telecom on the basis of price caps. The Commission finds that the time is not yet ripe for geographical differentiation of the tariffs, in view of the degree of competition in the relevant market sectors. In addition, the Commission is of the opinion that a switch to price cap regulation cannot be made until all tariffs have been reviewed definitively for cost orientation. In the near future, the Commission will develop a price cap model in consultation with interested parties. The next part will deal briefly with this.

11. Future cost orientation review

11.1 Introduction

An important objection to tariff regulation on the basis of the ex ante rate of return, which up to now has been the basis of this assessment, is that it only stimulates KPN Telecom to a limited extent to realize savings on costs or introduce improvements in efficiency. After all, under such a supervisory regime the savings made are skimmed off the following year. This objection occurs less with price cap regulation. For a period of several years, it is determined by what rate the tariffs (or individual tariffs) must be reduced. Extra income during the agreed period (e.g. as a result of additional savings or growth), are for the benefit of KPN Telecom itself. Careful setting of the price cap(s) prevents *ex ante* and *post ante* rates of return from differing too much from each other.

Tariff regulation on the basis of price caps is attractive to users as well as to KPN Telecom itself. Users are assured of tariffs that are reduced by a certain percentage each year, while KPN Telecom has as it were a greater degree of tariff freedom with the prospect of annual tariff reductions. During the consultations, a number of parties pointed out that the Commission must take care that the introduction of price cap regulation does not take place at the expense of monitoring competition distorting behaviour. The OPTA Commission is aware of this danger and will take it into account in the further development of price cap regulation.

11.2 Price caps

In developing a regulation model on the basis of price caps, the OPTA Commission will deal with questions such as:
- which services should fall under the price cap, only services for which there is still little competition or others as well?
- what role do discounts play in a price cap model?
- should there be a joint price cap for a number of services or for each service?
- what factors influence the level of the cost savings factor, the so-called minus X (see below for further explanation)?
- how long should the price cap period last?

With the aid of estimates of market shares, increase in traffic, increase in productivity, changes in the telecommunications infrastructure (switches, transmission capacity) and perhaps also a number of other matters, the extent can be determined to which the underlying costs and the income from the tariffs will undergo changes during a certain period. On the basis of this analysis, a determination will be made of the extent to which the aforementioned developments should reasonably be translated into reduction of the tariffs. This reduction is expressed in a cost savings factor (the minus X) which in general is corrected for inflation. In short, it comes down to the fact that the tariffs under a price cap regime must be reduced over a period of several years by a percentage equal to the rate of inflation minus the cost savings factor.

The OPTA Commission intents to involve interested parties in the development of such a price cap model. A brief explanation is given below of how the Commission envisages this.

11.3 Development of a price cap regime

The OPTA Commission intends to publish a consultation document early next year indicating which choices are at hand in drawing up a price cap model. Interested parties are requested to give their views on the matter. Following this, the Commission will take a definite position (spring 1999), which will be then be substantiated technically by a calculation model. The objective is to start the price cap regime before the summer.

THE COMMISSION OF THE NETHERLANDS INDEPENDENT POST AND TELECOMMUNICATIONS AUTHORITY (OPTA), on behalf of the Commission,

prof. dr. J.C. Arnbak, Chairman