Buying power for the purchase of call Origination to 0800 numbers

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# Buying power for the purchase of call origination to 0800 numbers 

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## Summary

A business or institution may be accessible to its target group via various means of communication. If an organisation wants callers to be able to ring free of charge, an 0800 number is the appropriate solution. In that case, the number user pays the cost of the call and thus buys call origination from the callers' networks.

For years now a debate has been ongoing over the rates charged, particularly for mobile call origination to 0800 numbers. The charge is roughly 25 cents per minute, which is high in comparison with the regulated mobile termination rates based on the costs which network suppliers incur in providing call termination. Technically, call termination is very similar to call origination, so the costs are also comparable. The charges are also high in comparison with the rates charged for comparable services in other parts of the market.

This study examines whether there is a monopoly in each network, what potential buying power mechanisms exist, and how effective those mechanisms are. The research was conducted via a series of in-depth interviews with various players in the market for 0800 numbers, supplemented by a study of the literature and internet research.

There are no real substitutes for the purchase of call origination to an 0800 number, whether fixed or mobile. Moreover, by being accessible solely via fixed (or mobile) networks, an organisation loses blanket accessibility for too many of its customers. The alternative number series examined, such as 0900 numbers, geographic numbers and 088 numbers, do not meet the number user's need to be accessible free of charge to the general public. Moreover, these series do not always have an image that matches the aims of the number user. Alternative free means of communication, such as chat, e-mail and similar methods, are not sufficiently well-established, provide a different communication experience which does not meet the same need as voice telephony, and in many cases entail too many additional staff costs for the organisation.

Owing to the absence of sufficient effective substitutes, there are supplier-specific relevant markets for the provision of call origination to an 0800 number. Each originating fixed and mobile network has a monopoly on the market for call origination from the associated subscribers. Number users have little if any buying power in relation to the monopoly position held by each originating network. Choosing a different connection route (e.g. by opting for direct interconnection instead of using transit) does not yield any bargaining power because it is necessary to buy call origination from the originating network for each route. In practice, multimarket contact also fails to provide buying power because the various services are purchased separately from the point of view of both the number user and the telecom provider. Encouraging competition between the networks by not being accessible for the least favourable networks raises practical objections and does not fulfil the aim of being accessible to the general public.

# 1 Introduction and research question 

A business or institution may be accessible to its target group via various means of communication. If an organisation wishes to be accessible by telephone free of charge to callers, it is necessary to buy call origination from the callers' networks: the organisation (number user) then always pays the cost of the call. This study is about market relationships: does the number user have any bargaining power in relation to telephony providers?

In principle, a number user can choose from various types of telephone numbers, which can be broadly divided into regional numbers and service numbers. Service numbers can be subdivided into numbers which are free of charge to callers, namely 0800 numbers, and numbers for which the caller pays, namely $090 \mathrm{x}-$, 18 xy - or 088 numbers. In the case of a call to a regional number, it is similarly the caller who pays. In the case of an 0900 number, the number user is free to set the charge, which may range from virtually zero to more than one euro per minute. In the case of an 0800 number, the number user pays all the call charges for the traffic.

In April 2010 OPTA sent market players a questionnaire on 0800- and 090x numbers. Following analysis of the results, the Authority decided to conduct further research into 0800 numbers. It was receiving indications that mobile providers were charging high rates to number users (the parties receiving the calls).

This may indicate that the mobile providers have significant market power. A possible mechanism for counterbalancing that market power is the presence of buying power. In theory, if the buyer of a product or service has bargaining power, that can prevent suppliers from exercising market power and demanding an uncompetitive price. That power is determined by potential buying power mechanisms and their effectiveness. The first type of buying power mechanism that might be considered concerns alternatives (substitutes) for entering into 0800 call origination contracts and generating call origination to 0800 numbers via other routes.

In the case of the free 0800 numbers, the number users are the customers and the call origination to those numbers is the service purchased. This research focuses on the following questions:

1. Is there a monopoly in each network (so that each origination network is a separate relevant market)?
2. What potential buying power mechanisms are there?
3. How effective are those mechanisms?
4. What is the impact of those mechanisms on the market power of originating parties?

This analysis concerns both fixed and mobile call origination, although it emerged from the interviews with number users that the cost of mobile call origination is the primary cause for concern. The analysis also relates to the current situation, in which fixed call origination from the KPN network is regulated, and a situation in which there is no regulation of origination, whether it involves fixed or mobile networks.

The research was carried out by means of a series of in-depth interviews with various players in the market for 0800 numbers (see Appendix A), supplemented by a study of the literature and
internet research. The market players interviewed included the mobile network providers, KPN, platform providers and current and former 0800 number users. The purpose of the interviews was to take stock of buying power mechanisms and assess their effectiveness and impact.

Chapter 2 outlines the technical and economic background to the market for 0800 numbers, and also covers regulation. The theory of significant market power and buying power is also discussed. Chapter 3 answers the research questions stated above on the basis of the information obtained from the in-depth interviews. Demand-side substitutes are part of the market definition and are therefore covered by the answers to research question 1 . The study ends with the conclusions on the buying power of 0800 number users purchasing call origination.

## 2 Background

What theories are relevant for buying power and the market in call origination? How does the market for 0800 numbers work? Who are the players who are active on this market?

For years now a debate has been ongoing over the rates charged particularly for mobile call origination to 0800 numbers. In 2006 the Nederlandse Vereniging voor Bedrijfstelecommunicatie Grootverbruikers [Dutch Association of Major Business Telecommunications Users] (BTG) found that number users were increasingly switching from 0800 numbers (free to the caller) to 0900 numbers which entail a call charge (AD, 13 April 2006). ${ }^{1}$ This downward trend has continued: in 2009, 732 new 0800 numbers were issued compared to 1039 in 2008 (OPTA, 2009). The trend is also evident from other sources, though the exact figures vary from one source to another. The decline in the use of 0800 numbers is thought to be due to the growing use of mobile telephones, which increase the total call charges for 0800 numbers.

This chapter describes the market for call origination to 0800 numbers. The description covers the technical characteristics, such as the various links in the chain from caller to 0800 number user, and the points where prices are set and negotiation takes place. Then follows an economic description of the market and market players, rates charged and consumers. Section 2.2 gives a brief account of buying power and the potential buying power mechanisms which are described in the literature.

### 2.1 Call origination to 0800 numbers

As already mentioned in the introduction, the decisive characteristic of an 0800 number compared to other numbers is that the call is free of charge for the caller. This is the receiving party pays or RPP principle. In the case of geographic and mobile telephone numbers, the caller pays the cost of the call: this is the calling party pays or CPP principle.

Opting for an 0800 number makes a firm, institution or government agency easily accessible for the target group, such as customers or the general public. The aim of easy access may follow directly from the organisation's mission, or may be part of its marketing and communication strategy, for example. An organisation may consider it important that (potential) customers and members of the public should not incur any costs if they have questions or complaints about a product or service.

However, that separates the 'payment' from the 'decision': the caller does not pay the cost of the call, he does not even know what those costs are and therefore does not take them into account in his decision. For the caller, the costs have no influence over the frequency and duration of calls. And in so far as the costs for the number user vary from one originating network to

[^0]another, those variations are also irrelevant to the caller. Callers will not decide whether to use a fixed or mobile line on cost grounds, but for other reasons (such as convenience and sound quality), and they will certainly not choose their mobile provider on the basis of charges which they do not pay and of which they are unaware.

There are various links forming the interconnection between a caller and an 0800 number user. Those links are shown in Figure 2.1. ${ }^{2}$ The caller rings from a fixed or mobile network, the originating network. This network handles the call origination to the terminating network, either via direct interconnection between the originating and the terminating network or via a transit provider.

Most calls from the mobile originating network are handled via transit. In practice, KPN CS often performs that role. The same applies in the case of KPN Mobiel which has by far the biggest market share among mobile operators (see Table 2.2). There are also some direct interconnections between mobile operators and a terminating network and/or platform provider (such as KPN's Getronics/New Tel Essence). This functions as a platform provider for all 0800 numbers hosted by KPN. Table 2.5 shows that this concerns the majority of the 0800 numbers allocated.

From the fixed originating network there are a number of direct interconnections to other fixed networks hosting 0800 numbers (including Getronics/New Tel Essence). The originating traffic to the terminating networks with which there is no direct interconnection is routed via KPN transit.

Direct interconnection (without transit) can be cheaper for both the originating and the terminating network: the two networks may split the difference in relation to the transit route charges. Direct interconnection is only viable above a certain volume of traffic, since it also entails costs.

The terminating network terminates calls to the number user. In the case of service numbers such as $0800,090 \mathrm{x}$ and 18 xy numbers, there is often a platform provider between the terminating network and the number user. This provider routes the incoming traffic to customer service, e.g. via an option menu or on the basis of the waiting time for the various customer service locations.

[^1]Figure 2.1 Diagram showing call origination to 0800 numbers $^{3}$


Source: SEO Economic Research
As shown in Figure 2.1, the terminating network and the platform provider are chosen by the number user, while the originating network is chosen by the caller. This suggests that the analysis of market power is analogous to analysis in respect of call termination if the caller pays (СРP), because in both cases the party who pays is not the party who chooses the network for the call origination (RPP) or call termination (CPP).

Some market players perform multiple roles in this chain. Fixed network providers may both originate and terminate traffic to 0800 numbers. A fixed network may also be a platform provider. However, KPN is the only player who can perform all roles in full, since it has both a fixed and a mobile network.

[^2]Figure 2.2 shows which parts of the traffic from a fixed or mobile network to 0800 numbers are regulated. In the case of fixed traffic to 0800 numbers, only KPN is regulated. In the case of mobile traffic, there is no regulation. The same is true of origination to 0900 - and $18 x y$ numbers from a mobile network.

Figure 2.2 Call origination to 0800 numbers is only regulated from the fixed KPN network

## Tariff regulation for KPN.

Other players not regulated No regulation


Source: OPTA: Marktanalyse vaste telefonie (2008)
If a call is originated to an 0800 number, it is routed through the chain indicated in Figure 2.1 from top to bottom. In the rest of this chapter, the various links in the chain are discussed in that order in terms of the number of players and the size of the players. Finally, we look at the market tariffs for 0800 numbers and compare them with tariffs in other (regulated) markets.

## The caller

In recent years, there has been a trend towards callers making increasing use of mobile phones. That increase is shown in Figure 2.3. There has been a corresponding decline in the use of fixed telephony. In the Netherlands, there were 41 fixed lines per 100 residents in 2008, while in 2000 the figure was 62 . A growing number of households now only have mobile telephones.

Figure 2.3 The number of mobile terminals has risen while the number of fixed terminals has fallen

Number of terminals per 100 residents


Source: Statistics Netherlands (CBS) (2006, 2007 \& 2009)
As a result of these developments, an 0800 number user is no longer accessible for the entire market if callers can only ring from a fixed line. Number users adopting this strategy are excluding mobile-only households. The next chapter examines this in more detail.

## Mobile networks

Table 2.1 gives some key figures for the Dutch mobile telecommunications market in the second half of 2009 and the first quarter of 2010 . The weighted average revenue per user per month (ARPU) is increasing.

Table 2.1 Key figures for the mobile telecommunications market in the Netherlands

|  | Q3 2009 | Q4 2009 | Q1 2010 |
| :--- | :---: | :---: | :---: |
| Number of subscribers | 19259370 | 18735750 | 18193420 |
| Total revenue (EUR million) | 1719.11 | 1684.65 | 1695.63 |
| Weighted monthly ARPU (EUR) | 25.17 | 25.88 | 26.65 |
| Data revenue (EUR million) | 403.00 | 440.06 | 547.47 |

Source: The Netsize Guide 2010.
Table 2.2 gives the number of subscribers and the market share in the first quarter of 2010 per mobile operator. Subsidiaries such as Hi and Ben are included in the parent company's market share.

Table 2.2 KPN has the biggest market share among mobile operators in the first quarter of 2010

|  | KPN Mobiel (Hi, Telfort) | Vodafone | T-Mobile (Ben, Orange) |
| :--- | :--- | :--- | :--- |
| Number of subscribers | 9518050 | 4283370 | 4392000 |
| Market share | $52.32 \%$ | $23.54 \%$ | $24.14 \%$ |
| Of which prepaid | $26.29 \%$ | $9.39 \%$ | $10.62 \%$ |
| Of which post-paid | $26.03 \%$ | $14.15 \%$ | $13.52 \%$ |

Source: The Netsize Guide 2010
In the mobile telecommunications chain, a distinction must be made between parties with a mobile licence (MNOs: Mobile Network Operators) and parties using the mobile network and/or transmitter masts of other players, the mobile virtual network operators (MVNOs) and service providers (SPs). MVNOs have their own network except for transmitter masts (and the necessary licence for spectrum use) while service providers use number series belonging to the mobile network provider (OPTA, 2009). They offer telephony without the consumer being aware of which network is used, and can set their own charges. Table 2.3 lists some mobile virtual network operators and service providers.

Table 2.3 MVNOs and service providers

| MVNO | Service provider |
| :--- | :--- |
| Barablu | Rabo Mobiel |
| Elephant Talk | Debitel |
| Tele2 | AH mobile |
| Teleena |  |
| Lycamobile |  |

Source: OPTA, 2009

## Terminating network and platform providers

The concentration is lower in the next link: the platform providers. Table 2.4 shows the platform providers with whom the parties do business.

Table 2.4 Platform providers

| BT | Tele2 |
| :--- | :--- |
| Colt | Elephant Talk |
| Verizon | UPC Business |
| Sound of Data | Getronics (KPN) |
| Diatele |  |

Source: SEO Economic Research.
The public number register maintained by OPTA ${ }^{4}$ gives the status of each telephone number (cooling off, reserved or allocated) and the name of the customer with whom the number is registered. On the reference date (26 January 2011), a total of 263700800 numbers had been allocated to 3854 different firms. These are trade names, so that the same company may occur more than once under different trade names.

[^3]Most of the allocated 0800 numbers are registered with a fixed network operator and/or platform provider. Table 2.5 lists these companies with the associated number of 0800 numbers.

Table 2.5 Total 0800 numbers allocated to operators and/or platform providers

| Trade name | Total numbers <br> allocated |
| :--- | :--- |
| KPN B.V. | 9615 |
| Verizon Nederland B.V. | 2103 |
| Colt Technology Services B.V. | 1195 |
| BT NEDERLAND N.V. | 737 |
| Orange Business Netherlands B.V. | 222 |
| World Teleconnect International B.V. | 181 |
| MTTM Partners B.V. | 169 |
| KPN Telecommerce B.V. | 153 |
| UPC Nederland Business B.V. | 108 |
| Tele2 Nederland B.V. | 104 |
| Coolwave Communications B.V. | 102 |
| Ziggo B.V. | 74 |
| Tele2 Netherlands Holding N.V. | 69 |
| The Sound of Data B.V. | 21 |
| Elephant Talk Communications PRS ${ }^{5}$ | 20 |

Source: OPTA number register, 26 January 2011.

## 0800 number users

A minority of the 0800 numbers allocated are registered with the number user. Table 2.6 lists some large and/or well-known number users.

Table 2.6 Total numbers allocated to number users

| Trade name | Total numbers <br> allocated |
| :--- | :--- |
| Achmea Interne Diensten N.V. | 65 |
| ABN AMRO Bank N.V. | 50 |
| Sanoma Uitgevers B.V. | 43 |
| ANWB B.V. | 40 |
| Microsoft B.V. | 28 |
| Unilever Nederland B.V. | 26 |
| Tax Office | 23 |
| SNS Bank N.V. | 23 |
| Rotterdam local authority | 9 |

Source: OPTA number register, 26 January 2011.
At the beginning of this chapter the declining trend in the total number of 0800 numbers was mentioned. Figure 2.4 shows that there has indeed been a decline in the number of requests for 0800 numbers since 2007. However, the total for active 0800 numbers rose steadily from 1998 to 2008, since when it has remained relatively stable.

[^4]Figure 2.4 Number of requests for 0800 numbers has declined since 2007


## Source: Confidential data from OPTA (2010) processed by SEO Economic Research

For comparison, Figure 2.5 shows the total number of active 0900 numbers. This has been relatively stable since 2006, though there has been a slight fall in recent years. Comparison of the two figures does not indicate any shift from 0800 numbers to 0900 numbers (more on this in the next chapter).

Figure 2.5 The number of active 0900 numbers has been stable since 2006


Source: Confidential data from OPTA (2010), processed by SEO Economic Research. The high number of cancellations in 2003 is largely the result of one platform provider returning a substantial quantity of reserved numbers at that time.

## Tariffs

Table 2.7 shows a number of tariffs for incoming traffic on 0800 numbers from both fixed and mobile networks, using data based on public internet sources. ${ }^{6}$ One striking point is the amount of the mobile supplement per minute paid by the number user in addition to the charge for fixed telephony. It is also noticeable that the mobile supplements vary.

Table 2.7 Tariffs for 0800 number users for incoming traffic (origination and termination) in euros.

|  | Voys |  | MTTM |  | Teledeals |  | Belcentrale |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Start | p.m. | Start | p.m. | Start | p.m. | Start | p.m. |
| Fixed telephony <br> (peak/off-peak) | 0.060 | 0.070 |  | 0.038 | $0.05 / 0.045$ | 0.04 | $0.045 /$ | 0.045 |
| Mobile <br> supplement |  | 0.300 |  |  |  | 0.255 |  | 0.045 |

Source: www.voys.nl; www.mttm.nl; www.teledeals.nl; www.belcentrale.nl; reference date 1 March 2011.
According to the data supplied by OPTA, the average charge for origination from a fixed line is 08 eurocents per minute, and for origination from a mobile it is 24.8 eurocents per minute. The charges in Table 2.7 are higher since they also have to cover other items such as call termination.

Comparison of the tariffs for mobile call origination with those for mobile call termination produces the following picture. According to confidential OPTA data, the total charge paid by platform providers averages 30.9 eurocents per minute (call origination and termination; based on an average of five providers). For 0800 numbers, termination is not regulated; however, there are regulations on mobile call termination in the case of other telephone numbers (see Figure 2.2). Up to 1 July 2010, the regulated maximum charge for fixed and mobile call termination ${ }^{7}$ respectively was 0.72 and 7 eurocents per minute. Eventually, this will fall to 0.36 and 1.2 eurocents in September 2012 (OPTA, 2010a).

This shows that the charges for mobile call origination to 0800 numbers are many times higher than the regulated tariffs for fixed and mobile call termination to other numbers. This is evident from Table 2.8. This table also shows for comparison the BULRIC tariffs (bottom-up long-run incremental cost). The BULRIC method computes the incremental costs entailed in providing call termination for other providers. There is also BULRIC-plus. This is the cost price plus a mark-up for non-incremental overheads (OPTA, 2010a).

The European Commission has stated that the BULRIC method is the right way of determining the cost price in the termination market. The mobile tariff for call origination to 0800 numbers is roughly 20 and 10 times higher respectively than the BULRIC and BULRIC-plus for mobile call termination. This ratio is lower if we look at the maximum tariff up to 2012 for call termination instead of the BULRIC tariffs.
Assuming that the costs of call origination to 0800 numbers are not significantly higher than the costs of call termination to other numbers, the conclusion is therefore that the charges for mobile call origination to 0800 numbers (far) exceed the costs. With regard to the costs of fixed call

[^5]origination to 0800 numbers, this difference is much smaller in relative terms, and certainly in absolute terms.

Table 2.8 Mobile call origination tariffs to 0800 are many times higher than the regulated termination tariffs.

| Measurement | Regulated mobile call <br> termination tariffs <br>  <br> te | Ratio between <br> origination tariff and <br> termination tariff |
| :--- | :---: | :---: |
| BULRIC model 2012/2013 | 1.2 | 20.7 |
| BULRIC plus 2012/2013 | 2.4 | 10.3 |
| Before July 2010 | 7.0 | 3.5 |
| July 2010 | 5.6 | 4.4 |
| January 2011 | 4.2 | 5.9 |
| September 2011 | 2.7 | 9.2 |
| September 2012 | 1.2 | 20.7 |
| Non-regulated mobile call |  |  |
| origination 0800 number | 24.8 | 1.0 |

Source: Mobile call termination tariffs based on OPTA data (2010a) and mobile call origination tariffs based on confidential data.

Market players have observed that one might also look at current retail prices, instead of BULRIC. They say that retail revenue per call minute would be a better benchmark for mobile call origination to 0800 numbers. Table 2.9 therefore shows three average tariffs per call minute.

Table 2.9 Average revenue per call minute in the Netherlands in eurocents.

| Description | Year | Average per call minute |
| :--- | :--- | :--- |
| Average retail revenue per call minute | $2008^{9}$ | $19.8^{10}$ |
| Average revenue per minute | $2008^{11}$ | 13.0 |
| Retail revenue per outgoing call minute | $2009^{12}$ | $16.2^{13}$ |

Source: See footnotes. Processed by SEO Economic Research.
The first average in Table 2.9 is the total revenue on mobile call minutes divided by the total volume of mobile call minutes. Apart from call revenue including roaming, this includes the retail revenue on fixed tariff components (subscription charges), SIM card, registration, accessories and charges for the device in so far as they are included in the subscription price. Without these fixed tariff components, the average per minute would be lower. The second average takes the average revenue per minute as a proxy for the average retail price per minute, based on 150 minutes' usage per resident per month. Here it is assumed that this average revenue also includes fixed tariff components. The last average shows the retail revenue per outgoing call minute. It is presumed that this again includes fixed tariff components.

[^6]As well as these fixed tariff components, all the averages in Table 2.9 probably include call minutes to different types of telephone numbers. This gives a higher average tariff, since the charge for a call minute outside the bundle, or to an 0900 number or a foreign number, for example, is many times the charge for a call minute within the bundle (see Table 3.1).

The retail charges for SIM-only contracts do not include the fixed tariff components and more expensive call minutes. The subscriber can choose from call bundles of varying sizes. Figure 2.6 shows the average price per minute for such bundles. It is assumed that the subscriber's usage falls half-way between his current bundle and the next smaller bundle. This results in a higher average charge per unit of use (minute, SMS, MMS or MB) than if the bundles are used in full.

Figure 2.6 Tariff declines as bundle size increases ${ }^{14}$


Source: Public tariff data for SIM-only subscribers with Vodafone (V), KPN (K) and T-Mobile (T). Processed by SEO Economic Research

The lowest curve ( V Bel) in Figure 2.6 is the only one without any SMS. In the case of all other contracts except T-Mobile Bel + SMS, a one-minute call can be exchanged for one SMS. ${ }^{15}$ Under most contracts, the larger the user bundle the lower the average tariff. The majority of SIM-only bundles are sold for less than 10 eurocents per minute. The SIM-only tariff covers both origination and termination. Assuming that this tariff at least covers the costs, it is therefore an overestimate of the costs of mobile call origination.

In conclusion, it can be said that the charge for mobile origination to 0800 numbers ( 24.8 eurocents) is considerably higher than both the regulated mobile termination tariffs (1.2 and 2.4 eurocents), the retail revenue per mobile call minute including fixed tariff components and more expensive call minutes ( 13 to 19.8 eurocents) and most SIM-only tariffs (less than 10 eurocents).

[^7]
### 2.2 Significant market power and buying power

Before the questions in this study can be answered, the background in terms of theory and competition law need to be described. OPTA regulates the telephony market with the aim of encouraging competition in this market, hence the regular analyses concerning the presence of significant market power. See Box 2.1 for a definition of significant market power (SMP). A dominance analysis looks at the presence of three elements which may act as a counterbalance to the party with significant market power.

Box 2.1 Significant market power
An undertaking has significant market power if it has 'a position of economic strength which enables it to prevent effective competition being maintained on a relevant market, by affording it the power to behave to an appreciable extent independently of its competitors, its customers, and ultimately of consumers'.
The term 'position of strength' indicates that there is insufficient pressure of competition. Independently indicates that 'the undertaking's decisions are largely insensitive to the actions and reactions of competitors, customers and ... consumers'. (EC, 2009b)

Source: European Commission, 2009b.
Once the relevant market has been defined, the market shares of the players in that market are analysed. If the concentration of players in a market is low, there is little risk of significant market power because the parties have to compete with one another. In the case of a monopoly, the market share is $100 \%$ and there is no competition from other players.

A second factor concerns the existence of access thresholds. Even in a monopoly, low access thresholds may mean that the monopolist is subject to competition from potential market entrants. In that case, the monopolist will not be able to demand a monopoly price and does not have significant market power.

The third point is that buying power may influence a player's market power. The presence of buying power may exert pressure on the supplier not to demand a monopoly price. There is a distinction between buying power and countervailing buying power. The presence of buying power does not necessarily mean that such power is able to counterbalance a player's market power. Conversely, if there is countervailing buying power, it is possible for the buying power to compensate for the power of the supplier. See Box 2.2 for a definition of countervailing buying power.

The degree of buying power depends partly on the concentration of buyers on the market. In this study, those buyers are the 0800 number users or in some instances the platform providers serving the number users. If the concentration of buyers is high - large traffic volumes generated by a few players - those buyers have a relatively strong bargaining position, and that encourages competition between suppliers on the market.

Box 2.2 Countervailing buying power
Countervailing buying power exists when a particular purchaser (or group of purchasers) of a good or service is sufficiently important to its supplier to influence the price charged for that good or service. In order to keep the price down, the purchaser must be able to exert a degree of pressure on the company to prevent a price increase. That can be achieved by making a credible threat, e.g. not to purchase the product or service, Ofcom (2006).

Source: Ofcom, 2006
The first element, definition of the market, is analysed in chapter 3 of this study. The second element, the existence of an access threshold, has already been examined by OPTA in relation to mobile call termination (OPTA, 2010a). These thresholds are prohibitive because access requires both a network and a licence. That finding applies equally to mobile call origination.

The third element, the presence of buying power, is the second subject of this research. There is always a degree of buying power; the only question is whether that power is countervailing (and therefore effective). Effectiveness depends on the degree to which a player may be able to exercise substantial market power (possibly in conjunction with other factors). The degree of buying power depends on the presence and effectiveness of what are known as buying power mechanisms. One point to bear in mind here is the idea that some substitutes and buying power mechanisms only enter the picture at a supra-competitive price level. If the price level is competitive, they are not a substitute and do not form part of the relevant market (the 'cellophane fallacy'). It is therefore important for the analysis of buying power mechanisms to examine whether the alternative would also be a substitute if the price were competitive.

Oxera (2007) and Lexonomics (2007) have studied the effectiveness of a number of buying power mechanisms. They respectively examined the market in mobile and fixed call termination between various networks. (OPTA, 2010a). The findings from these studies are not all applicable to the market in call origination to 0800 numbers, mainly because the markets examined involved mutual services, namely call termination for one another's networks. That therefore implies reciprocity, which is absent in the case of call origination to 0800 numbers: the traffic is one-way only, namely from the fixed or mobile originating network to the 0800 number. In the case of such one-way traffic, there is no direct reciprocity as an effective means of exerting buying power. Binmore and Harbord (2005) also looked at countervailing buying power, but in the market for fixed-to-mobile call termination. The principal mechanism which could be used in the negotiations was the outside option. This is the best alternative that a customer has if the negotiations do not fulfil his wishes. The substitutes available to 0800 number users are discussed in detail in chapter 3.

The following five buying power mechanisms from the studies by Oxera and Lexonomics are relevant for call origination to 0800 numbers.

- Refusal to pay. A number of instances of payment refusal showed that this did not result in lower tariffs.
- Arranging call origination via transit. This can only affect the tariffs if different networks charge different rates. In addition, it must be possible to replace the direct interconnection with the more expensive network by a direct interconnection with a cheaper network providing transit to the more expensive network. This transit implies indirect use of the lower
tariffs. However, it is also possible that the direct interconnection itself might be an alternative for routing the traffic via transit. Here, too, there must be a variety of tariffs. In practice, some platform providers have these direct interconnections with mobile operators while others can only receive voice traffic via transit. Number users can determine the route for incoming traffic to the 0800 number according to their choice of platform provider.
- Making a complaint. However, the College van Beroep voor het bedrijfsleven [Industrial Appeals Court] found only recently, as indicated by the research conducted by Lexonomics and Oxera, that a complaint is not an appropriate instrument for curbing dominant positions (In: OPTA, 2010a, p. 88-89).
- Supplying other services. However, there are no specific examples of this in practice. An 0800 number user may outsource multiple telephony services to networks. This means that the number user and the network have a business relationship in multiple market segments: the concept known as multi-market contact. Focusing specifically on the mobile provider, number users can outsource mobile telephony contracts to a mobile provider. The charges for mobile call origination to 0800 numbers might fall if the number user threatens to use a competitor for business mobile contracts.
- Denying access to one or more (mobile) networks. In this way, they would have interconnection only with networks offering the lowest tariffs. This could put pressure on the excluded networks to reduce their tariffs.

Chapter 3 will discuss the experiences and ideas of networks and current and former 0800 number users on these buying power mechanisms.

## 3 Findings

This chapter answers the research questions on the basis a literature study and in-depth interviews. Possible supply and demand substitutes form a significant part of this research. In the literature they sometimes come under the analysis of the buyer's market, and sometimes under the market definition. In line with the literature on competition, this report opts to cover demand substitutes under the definition of the market.

### 3.1 Is there a monopoly for each originating network?

In order to answer the question of whether there is a monopoly for each originating network, it is necessary, in principle, to use market definition criteria ('toolbox'). That toolbox is used by OPTA and other regulators primarily in connection with call termination on mobile networks, where the caller pays the cost. The present research deals with call origination, where the called party pays. For the first type of interconnection, the market is defined as follows by the European Commission (2009b):
> 'Call termination can only be supplied by the network provider to which the called party is connected. There are currently no demand- or supply-side substitutes for call termination on an individual network. Therefore, each network constitutes a separate relevant market and each network operator bas a monopolistic position on the market for terminating calls on its own network.' ${ }^{16}$

The European Commission and the national regulators such as OPTA consider that call termination services are not exposed to competition. In other words, there are supplier-specific relevant markets because each telephone service provider controls the handling of calls on its own network and can set the tariffs independently.

To what extent does this conclusion also hold true for call origination with RPP? The theoretical background described in chapter 2 revealed that the economic analysis of market power in the provision of call termination with CPP corresponds to the analysis of call origination with RPP. This means that the market in call origination with RPP should be defined in a similar way to the market in call termination with CPP.

This study tests that assumption by investigating whether there are demand and/or supply substitutes on the basis of which the market can be defined more broadly.

It emerged from interviews with number holders that it is very important to them for callers to be able to telephone them free of charge; see also section 2.1 . One party who had switched stated that the volume of calls to a free 0800 number exceeded the volume of calls to an 0900 number for which a charge was made.

[^8]Providing free access from mobile and fixed networks for callers ringing an 0800 number is a means of telecommunication that meets the described aim. Are there other routes enabling the general public to reach the number user at little or no cost?

In the case of numbers which can be called from a mobile network, access from a fixed line is discussed as an alternative. Substitution in the opposite direction (mobile instead of fixed) is of no interest to number users because calls from a fixed line cost only about $1 / 30^{\text {th }}$ of those from a mobile; it will therefore not be discussed any further.

It is customary to divide the alternatives into supply substitution and demand substitution. Supply substitution occurs if the call origination provider is replaced by a different provider or telecommunication service. Demand substitution occurs if the number user does not buy the call origination and instead purchases a different service from another provider.

## Supply substitutes

The network to which a subscriber is connected is the only party able to provide call origination from that network. There are therefore no supply substitutes for call origination from that network, though it is possible to arrange call origination via a different route, namely by direct interconnection instead of via a transit provider. This process is discussed in section 3.2.

## Demand substitutes

What other ways are there for users to purchase access free of charge (or at very low cost) for the general public, i.e. without call origination (direct or via parties in the chain) from a mobile or fixed network to an 0800 number? ${ }^{17}$

The analysis distinguishes between the possibility of calling from a fixed line (as a substitute for calling from a mobile network), calling telephone numbers other than $0800^{18}$ and communication without using a telephone. In the case of telephone access, the caller pays a charge for call origination in the case of every substitute. That is contrary to the aim of free access.

Apart from substitution, 0800 number users can also resort to channel management. For example, the number user may communicate only with existing customers, or offer access only to potential new customers.

## Access from a fixed line as a substitute for access from a mobile network

One option is to provide free access solely from a fixed network via an 0800 number. This is effective only in so far as mobile callers have access to a fixed line and in so far as the caller does not regard the fixed location of the line as an impediment.

[^9]The question is therefore to what extent mobile subscribers have access to a fixed line. Figure 2.3 shows the trend in the number of fixed and mobile connections: a growing number of households now only have a mobile connection. For some mobile callers who do have access to a fixed line, the fixed location of the line is seen as a limitation compared to a mobile telephone.

By allowing access only from a fixed network, number users are therefore deciding that a large and growing proportion of their target group cannot call the organisation (or at least, not free of charge); that is contrary to the communication strategy of many number users on that point. An example is the free mobile access to the Dutch 'Child Line' (Kindertelefoon), which has been debated all the way to the Lower House. For many number users, fixed lines are therefore not an effective substitute for access from a mobile network.

## Access via an 0900 number

It emerged from the interviews that access via an 0900 number may be an alternative, to some extent, to access via an 0800 number. In the case of an 0900 number, two tariffs are relevant: the charge paid by the number user (this depends on the service number tariff) and the additional charge that the caller pays to his own network; the latter applies only to mobile telephony. The following three factors limit the effectiveness of this option.

First, the 0900 number is not free to the caller. That is true for fixed network subscribers and to an even greater extent for mobile subscribers. The charges imposed by the mobile network may be very high, and were not less than 25 cents per minute in any of the cases presented, as shown in Table 3.1.

Table 3.1 Charges for mobile callers to 0900 numbers, in euros per minute

| Mobile operator | Prepaid | Post-paid |
| :--- | :---: | :---: |
| KPN mobiel | $1.30^{*}$ | 0.30 |
| T-Mobile | 0.35 | 0.25 |
| Vodafone | $0.29-0.35^{* *}$ | 0.30 |

Source: Public data on tariffs from KPN, T-Mobile and Vodafone.

* This includes the service number tariff ** Depending on the product ${ }^{19}$

Apart from the charges shown, the caller also has to pay the service number tariff. Figure 3.1 shows the breakdown of 0900 numbers according to the rate charged: a minority of the numbers cost more than EUR 0.10 per minute.

[^10]Figure 3.1 Majority of 0900 numbers charge a peak rate of EUR 0.10 p.m. or less


Source: Confidential data from OPTA (2010), processed by SEO Economic Research. The substantial decline in numbers < EUR 0.05 is largely on account of one platform provider returning a large volume of reserved numbers at that particular point in time.

However, these charges are often not transparent for the caller, and that can also be an impediment because, according to the interviewees, it is commonly believed that 'all 0900 numbers are expensive'. The fact that the caller pays and generates revenue for both the network and the number user has the following implications:

- The threshold for access to the number is raised. For most number users, that is probably undesirable. However, there are cases where number users hope this will limit frivolous and vexatious telephone calls.
- The incoming telephone traffic generates revenue for the number user. This may be one reason why a number user chooses an 0900 number rather than an 0800 number which entails a cost to him.

These two implications represent an exchange: the higher the revenue that the called party aims to generate via incoming traffic, the higher the costs for the caller and therefore the lower the accessibility, though it is the price elasticity of the caller that is decisive here: the more expensive the call, the less it is called. However, generating revenue is never a reason for choosing access via an 0800 number.

Part of the service number charge for the 0900 number is retained by the mobile operator by way of expenses. ${ }^{20}$ It is evident from public tariff information on various websites and from

[^11]confidential data obtained that an 0900 number generates revenue for the number user at rates from EUR 0.10 to 0.15 per minute upwards. It is possible to agree a volume discount, so that the 0900 number already starts generating revenue at lower rates. Figure 3.1 shows that the peak rate charged for the majority of 0900 numbers is 10 eurocents or less. Number users receiving large volumes of calls may also generate revenue at this level, but some number users will not be left with any revenue from the 0900 number. These could be firms who consider a low threshold to be important but regard the cost of an 0800 number as excessive. It was apparent from the indepth interviews that such firms or institutions deciding to switch will go for an 0900 number with a low tariff.

On the other hand, the interviews also revealed that if the charge for mobile call origination to 0800 numbers were to be reduced, not all 0900 number users would switch to an 0800 number because of the revenue which their 0900 number generates.

Second, an 0900 number has an expensive image regardless of the actual costs paid by the caller. For a number user, that image may be undesirable.

Third, 0900 numbers are not available in all mobile contracts. In some business contracts these numbers are barred by the employer. That frustrates the aim of being accessible to the general public.

Owing to these factors, 'access via an 0900 number' is of very little use as a substitute.

## Access via a geographic number

The number user could choose to offer access via a geographic number instead of an 0800 (or $0900)$ number. Three factors limit the effectiveness of this substitute.

First, in the current market a geographic number is not free of charge for the caller. In 2010, the average charge for calls to a geographic number was EUR 0.32 per minute for a prepaid mobile caller, EUR 0.14 per minute for a caller with a post-paid mobile contract, and EUR 0.10 per minute for a SIM-only subscriber. ${ }^{21}$ For callers from a fixed line, the (marginal) costs are lower, and may sometimes be zero, depending on the type of connection. These charges for mobile callers in particular tend to thwart the aim of being accessible at little or no cost. However, it should be noted that the costs for calls from mobile networks are generally lower than the charges for call origination to 0900 numbers.

Second, the interviews revealed that a geographic number may have an undesirable image compared to an 0800 number. A geographic number may give the impression that the number user is offering a regional service. Callers from another region might find that the communication is less worthwhile for them. ${ }^{22}$
network and the platform provider. In the case of 0800 numbers, the collection risk therefore cannot account for the high mobile call origination charges.
21 Calculated on the basis of public tariff data from KPN, T-Mobile and Vodafone.
22 Geographic numbers have been freed from geographic restrictions since January. If regional numbers eventually lose their regional image, this disadvantage may also disappear.

Third, under the number plan produced by the Ministry of Economic Affairs, Agriculture and Innovation, a geographic number permits fewer technical applications, such as routing to various customer services, etc. It emerged from the interviews that a geographic number is sometimes used for customer service, but the number plan does imply restrictions.

Owing to these three factors, access via a geographic number is not very effective.

## Access via other telephone numbers: 088 and 014

There are other number series available to number users for a specific purpose. An 014 number was launched specifically for local authorities. The 088 number is intended for access to businesses and institutions, and is not tied to a specific region. The $18 x y$ number offers an information service though which the telephone number, name and full address and postcode of an individual or organisation can be requested (OPTA, 2009) and is unsuitable for general contact. Table 3.2 sets out the advantages and disadvantages of all the telephone numbers discussed above.

Table 3.2 Advantages and disadvantages of alternatives to 0800 access

| Telephone number | Advantages | Disadvantages |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 0900 number | - | All kinds of services possible, same as | - | Costs for the caller and expensive <br> image |
|  | - | 0800 number. <br> No high charges for the number user | - | Some mobile providers have <br> barred 0900 numbers |
|  | - | Generates revenue |  |  |
|  | - | Various tariffs possible. |  |  |
|  | - | Familiarity and 'professional image' <br> National image |  |  |
|  | - | Lower risk of frivolous calls |  |  |

Source: SEO Economic Research
These alternatives do not offer calls free of charge to the caller. The 088 number is not accessible on all contracts. 088 numbers are business numbers, so according to the number plan they cannot be used for customer service. The 018 number can be used only for obtaining address details. That limits the effectiveness of 088 and 018 numbers as substitutes. The 014 number is available to local authorities only.

## Other forms of telecommunication (without telephony)

There are other techniques apart from telephony available for contact with the target group. They are listed in Table 3.3. For all these forms of communication, the caller must have access to the internet and be sufficiently competent in using it. The interviews revealed that alternatives based on the internet are seen as supplementing telephone access rather than replacing it. Accessibility

[^12]via the internet is lower than via an 0800 number. That limits the effectiveness of these substitutes. Also, these forms of communication offer a different experience, and for many customers they fulfil a different need. For example, e-mail is less direct than voice telephony, and websites frequently offer less specific information on customers' questions. Also, all these techniques are insufficiently established to provide a complete alternative to voice telephony. However, some people find on-line chat preferable to speaking by phone, so that chat may be a sensible addition to the range of communication forms. The internet services in Table 3.3 are therefore used to reach a larger target group and to respond to the communication preferences of (some) members of that group, but not to replace access via mobile phone or a fixed line to an 0800 number. This also explains the presence of chat programmes and co-browsing, although the staff costs entailed are relatively high. However, an organisation may decide to offer alternative communication channels by way of channel management in order to drive down costs. Nevertheless, owing to the additional staff costs, chat and e-mail are not suitable for that.

Substantial sections of society would therefore consider that an organisation would be more difficult or impossible to contact if voice telephony were replaced by the options in Table 3.3. In principle, internet telephony forms an exception here. Depending on the peripherals used, internet telephony may offer virtually the same experience as voice telephony. For instance, there are DECT telephones which use Skype without involving a computer. There are also applications for internet telephony such as Skype on mobile telephones. However, these are far from being sufficiently well-established to offer a viable alternative to an 0800 number, though in the longer term they might provide a promising strategy if mobile internet telephony becomes more established.

Table 3.3 Alternatives based on the internet

| Internet services | Advantages | Disadvantages |
| :---: | :---: | :---: |
| Chat service | - Reaches a broader target group. Many mobile callers have the internet on their telephone, thus this service reaches a broad group of people. | - On its own, this means of communication does not cover the entire target group. Not everyone has the internet, knows how to handle a chat service, or prefers this system. Chat is therefore chosen to extend the communication range but not to replace telephony. <br> - Chat sessions often take longer than a telephone call, so staff costs are much higher. |
| Call-back/call-menow | - Reaches a broader target group. Many mobile callers have the internet on their telephone, thus this service reaches a broad group of people. | - This means of communication does not cover the entire target group. Not everyone has the internet or is willing to disclose their number. <br> - In contrast to other internet services, the number user incurs telephone charges (of course, that also applies to 0800 numbers). |
| E-mail | - Reaches a broader target group. Many mobile callers have the internet on their telephone, thus this service reaches a broad group of people. | - This means of communication does not cover the entire target group. Not everyone has the internet. |
| Internet | - Reaches a broader target group. Many mobile callers have the internet on their telephone, thus this service reaches a broad group of people. FAQ may avoid the need for a telephone call or shorten the call. | - This means of communication does not cover the entire target group. Not everyone has the internet. |
| Co-browsing | - Reaches a broader target group. Many mobile callers have the internet on their telephone, thus this service reaches a broad group of people. <br> - Not only provides answers to questions but also offers the possibility of seeing processes on the number user's website. | - This means of communication does not cover the entire target group. Not everyone has the internet. <br> - Chat sessions often take longer than a telephone call, so staff costs are higher. |

Source: SEO Economic Research

## Market definition - Conclusions

There are no real substitutes for buying call origination to an 0800 number. That conclusion applies in respect of both fixed and mobile call origination. Moreover, if an organisation offers access only from fixed (or mobile) networks, it becomes less accessible for many of its customers. The alternative number series considered do not meet the number user's need to provide free access to the general public. The alternatives which are free of charge are not sufficiently wellestablished, provide a different communication experience which does not meet the same need as voice telephony, and in many cases entail excessive additional staff costs for the organisation.

Owing to the absence of sufficient effective substitutes, there are provider-specific relevant markets for the provision of call origination to an 0800 number. Each originating fixed and mobile network has a monopoly on the market for call origination from its subscribers.

### 3.2 Buying power

Buying power is the buyer's bargaining power. This chapter reports on the findings concerning the bargaining power of number users purchasing call origination to an 0800 number. The number user generally does not negotiate with the originating networks but with the transit or platform provider. The substitutes discussed in section 3.1 could be used by the purchaser during the negotiations as a means of exerting pressure. If the negotiations do not proceed as desired, the buyer could threaten to switch to a substitute. However, the previous section concluded that the various potential substitutes are not sufficiently acceptable to many organisations and therefore switching is a serious outside option for them in the negotiations.

## Negotiations

How do negotiations work in practice? The interviews revealed the following picture:

- A number user may choose from several platform providers. That gives the number user influence over the route of the traffic flow: with or without direct interconnection, depending on the interconnections of the platform provider.
- If a number user considers offering access via an 0800 number, that party requests a proposal from one or more platform providers. The platform providers then submit their proposals.
- The tariffs which the platform providers offer depend partly on their facilities for direct interconnection, the contract with the transit provider KPN, the tariff structure (with or without set-up charges), the efficiency of the business operation and the margin that the platform provider requires.
- There are two types of relationship between the platform provider and the originating network:
- In the first type, the platform provider agrees a tariff with each network. Factors which determine the level of charges include the tariff structure (charges for call set-up and/or peak rates). ${ }^{24}$ The platform provider's connections often do not comprise different tariffs for number users on the basis of the originating network: the charge is the same for each incoming mobile call minute.
- The second type uses the transit provider KPN. In that case, the platform provider does not deal with the network. The tariff for call origination is notified annually by the transit provider KPN to the platform providers and consists of a single rate that does not differentiate according to the originating networks. That rate has remained unchanged for a long time.
In this case, the provider of the originating network therefore has no contractual relationship with the platform provider, but only with the transit provider KPN. It emerged from the interviews that, in the case of an MNO, the transit provider KPN determines the tariff schedule per service each year and notifies the MNO. This tariff schedule specifies the fee that the MNO receives for call origination. These tariffs are not negotiated and they have remained unchanged for this MNO for the past few years. In this case the MNO does not know the rates which the transit provider KPN charges the platform providers.

[^13]In the case of telephone traffic via the transit provider, there are therefore no negotiations. The transit provider sets the price, both downstream for the platform provider and upstream for the network.

The in-depth interviews indicated that there is no chance of getting the tariffs reduced by negotiating on the basis of the volume of traffic. Nor are all the alternative telephone numbers an effective means of exerting downward pressure on tariffs. If a number user threatens to switch to an 0900 number, this does not pose any threat to the MNO's revenue (assuming there is no sharp decline in traffic volume). As already stated, for each originating minute to an 0800 number the MNO receives on average 24.8 eurocents from the number user, and for an originating minute to an 0900 number it receives around 30 eurocents from the caller. The MNO therefore does not lose out in the event of a switch and will therefore not be influenced by the threat of such a switch.

Apart from this general picture, the interviews revealed a number of cases in which negotiations had taken place.

## Buying power and effectiveness mechanisms

The mechanisms which emerged from studying the literature and from the interviews are described below. Note that the focus is solely on bargaining power here; the substitutes available to the number user have already been analysed above:

- Refusing to pay;
- Lodging a complaint with the regulator;
- Choosing a different interconnection route;
- Multi-market contact;
- Comparing the rates charged by the various networks and on that basis excluding certain networks when buying call origination.

These mechanisms are discussed individually below and assessed on the basis of the information obtained from the interviews.

## Refusing to pay

The interviews indicate that refusing to pay is not a strategy that is considered. A dispute under private law costs time and money, and damages the business relationship. In addition, on the basis of the regulations it is unlikely that more favourable terms could ultimately be extracted in this way.

## Lodging a complaint with the regulator

The interviews indicate that lodging a complaint with OPTA does not offer any bargaining power. The Industrial Appeals Court also decided recently that lodging a complaint is not an appropriate way of conducting a tariff strategy, and is too difficult and time-consuming to be effective as an instrument for exercising buying power (OPTA, 2010a, p. 89).

## Choosing a different interconnection route

Traffic to an 0800 number always begins with the caller's originating network and ends with the number user's terminating network, but the route between these two fixed points may vary: via a transit provider or via direct interconnection, see also Figure 2.1. What does this mean for the number user's bargaining power?

The platform provider and the network choose direct interconnection on the basis of a cost/benefit comparison with the transit route. Direct interconnection entails fixed costs, such as the establishment of the connection and the administration. The expected volume of traffic must be high enough to cover these fixed costs.

Depending on the volume and the fixed costs, it may therefore be worthwhile for the platform provider and the network to establish a direct interconnection and cut out the transit provider KPN. The interviews indicate that this may exert downward pressure on the rates agreed with the transit provider KPN. This bargaining power can be exercised in relation to the transit provider KPN, but not in relation to the originating network, because call origination is controlled by the originating network for each route.

## Multi-market contact

The number user and the networks sometimes do business in a number of areas. A number user also buys other telecommunication services, such as mobile subscriptions for own use. It is conceivable that the rates for 0800 -access play a role in choosing the MNO with which to place the firm's own mobile contracts. The negotiating strategy could take the following form: the firm's business mobile subscription is placed with the party which offers the most favourable overall package (including 0800 access). However, it is only possible to negotiate on tariffs if there is a direct interconnection between the MNO and the number user (via the platform provider).

The potential of this type of mechanism was examined. The interviews indicate that the practical relevance of such a strategy is in any case limited by two factors.

First, from the MNO's point of view, the contracts are set up by different departments which are separate from one another. One department cannot generally adjust the offer on the basis of signals from another department. This number user strategy would therefore have no effect on the offer made by the MNO.

Second, the number user often commissions the various telecom services separately, at different times. If 0800 access is part of a contract which includes more services, that access is often a relatively minor element.

The bargaining power derived from multi-market contact is probably limited in practice on account of the above factors.

## Refusing access via a network charging unfavourable rates

Following comparison of the rates charged by various networks, the number user could choose to arrange access only for the network(s) offering the most favourable terms. For mobile callers, that could mean that the 0800 number is not available to subscribers of one or two MNOs. The negotiations might resemble an auction: the number user notifies the MNOs that it will not do business with the most expensive MNO, and then receives bids.

A situation in which an 0800 number is not accessible to all callers is at odds with the principle of interconnectivity. However, in the case of 0800 numbers, the national regulations do not impose any obligation to ensure connectivity; that situation is therefore permissible.

In theory, the risk of being excluded gives every MNO an incentive to make a good offer. Subscribers will be dissatisfied with the service, and the MNO will lose the revenue from the traffic, if the number is not accessible. The MNO's reputation may also be damaged if the number user publicises the network for which the number is not accessible.

However, there are all kinds of drawbacks to this situation, including for the number user. Section 3.1 has already discussed the possibility of excluding mobile access altogether. However, access from a fixed network proved to be ineffective as a substitute for access from a mobile network, particularly as a growing proportion of the population does not have a landline. That is equally true for selective access via the least expensive MNOs. While the limited access in that case affects a smaller section of the target group, that section will experience the same difficulties as if all mobile access to the number holder is excluded.

The interviews produced virtually no indications that this would be considered acceptable if only part of the market were affected. However, the interviewees did state that in practice it has happened on occasion that a number was not accessible for all MNOs. For instance, mention was made of an 0800 number which was shown in a television broadcast but which could not be dialled from one particular network. That fact was also pointed out in the television broadcast. However, no further information was supplied, and this example seems to be an exception.

Apart from the effect on accessibility for part of the target group, selective access may lead to callers blaming the number user. The number user will have to point out that the number is not accessible to all callers, and must also get the message across that this is down to the network operator. The interviews also revealed that setting up the mechanism described would entail more transaction costs. Furthermore, the parties do not want to experiment with interconnection, and also value their business relationship with the telecom operators.

On the grounds set out above, it seems unlikely that excluding access via a network charging relatively unfavourable rates can create any buying power.

## Buying power - Conclusions

From studying the literature and the interviews with market players it is evident that a number user has little if any bargaining power. Choosing a different connection route does not create any bargaining power because call origination has to be bought from the originating network for each
route. In practice, multi-market contact probably does not generate any bargaining power because the different services are purchased separately from the point of view of both the number user and the telecom provider. Encouraging competition between the networks by excluding access for the least favourable networks presents practical problems and is contrary to the aim of being accessible to the general public.

### 3.3 Conclusion

In the case of mobile call origination, this report concludes that there are no indications that services other than call origination form part of the relevant market. Each telecom provider therefore has a monopoly on the market in call origination from its subscribers. The parties buying call origination have insufficient bargaining power to counterbalance the market power of the telecom provider. The rates charged for mobile call origination tie in with that analysis: they are at least ten times the costs (on the basis of BULRIC for termination, see Table 2.8).

In the case of fixed call origination, the conclusion is the same for market definition and buying power: each fixed provider has a monopoly on the market for call origination from its subscribers. In principle, number users have no bargaining power to keep that market power in check.

However, it is noteworthy that the rates for fixed origination are only a fraction of those charged for mobile origination, a difference which cannot be explained by differences in costs. Two possible, related reasons were offered for this. First, it is clear from Figure 2.2 in Chapter 2 that KPN - by far the biggest provider of fixed call origination - is regulated. KPN is therefore not free to set its own rates for call origination. In principle, however, other parties are free to do so, and evidently charge higher rates, but those rates are still well below the charges for mobile call origination, and are closer to the KPN tariffs. It looks as if the regulated tariffs act as a sort of reverse price leadership, and the parties are afraid to go too far above them lest their image is impaired. Another possible factor here is that the rates are to some extent dependent on the path - something that some parties suggested in respect of the rates for mobile call origination. The in-depth interviews also revealed that from the perspective of the fixed network there are many objections to increasing these tariffs. The rates charged for call origination are fixed by contracts with KPN over a fairly long period, and under civil law it would be difficult to amend those contracts. Finally, the parties offering fixed call origination also act as platform providers more frequently than those offering mobile origination. By charging substantially higher rates than other fixed networks, a provider could damage his market position.

The next question is what would happen to the rates for fixed call origination to 0800 numbers if regulation of KPN were to cease. On the one hand, on the basis of the above arguments concerning path-dependence, long-term contracts and fear of harming one's reputation, it is unlikely that prices would suddenly escalate. On the other hand, it could mean the end of the reverse price leadership of KPN, after which the tariffs might be gradually increased.

## Appendix A List of interviewees

Achmea<br>BCPA<br>Tax Office<br>BT<br>BTG<br>Colt<br>Rotterdam local authority<br>De Kindertelefoon [Childline]<br>KPN<br>Nibud<br>OT 2010<br>Tele2<br>T-Mobile<br>Unilever<br>UPC<br>Verizon<br>Vodafone

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OVUM, Mobile voice and data forecast pack 2009-14, www.ovumkc.com

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[^0]:    1 As discussed later, there may be other motives for making this switch, such as the need to finance some or all of the cost of customer service out of income from an 0900 number, or to reduce the number of frivolous calls by making the caller pay

[^1]:    2 The same arrangement applies to interconnection to 090 x numbers. The in-depth interviews indicated that the underlying technique is the same, apart from additional services such as intelligent routing. According to the interviewees, the extra charges for this are low.

[^2]:    ${ }^{3} \mathrm{KPN}$ is included in this diagram as a transit provider. Other parties can also perform this role, but it is clear from the in-depth interviews that this role is often performed by KPN.

[^3]:    4 www.opta.nl/nl/numbers/numbers-zoeken/

[^4]:    5 PRS stands for Premium Rate Services

[^5]:    ${ }^{6}$ www.voys.nl; www.kpn.nl; www.mttm.nl
    Excluding 0676, 067, 090x and international numbers.

[^6]:    Not applicable to 0676, 067, 0800/090x and international numbers. EC (2010)
    In 2007 it was 20.5 eurocents.
    11 Merrill Lynch (2008) \& OPTA (2010b). Merrill Lynch states that the actual retail price per minute is higher. The last source states that it is 0.13 eurocents per minute.
    OVUM (2009)
    13 Dollars (22.5 dollar cents) converted to euros at an exchange rate of 0.72

[^7]:    14 On the basis of a 1-year contract.
    15 In the case of T-Mobile Bel + SMS, the ratio of call minutes to SMS varies according to the bundle.

[^8]:    16 'Commission Staff Working Document, Explanatory note, Accompanying document to the Commission Recommendation of ... on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU', 2009.

[^9]:    17 The in-depth interviews revealed that awareness of the relatively high charges for mobile call origination to 0800 numbers is low in many organisations, certainly if the 0800 number is part of a larger telecom package.
    18 When switching to a different telephone number, it is necessary to allow for a one to two-year transitional phase. The switch also entails marketing expenses.

[^10]:    19 From high to low, Standard, Higher Rates or Z11

[^11]:    20 This figure covers the collection risk, amongst other things. In the case of 0900 numbers, this risk lies mainly with the originating network, whereas for 0800 numbers it lies mainly with the terminating

[^12]:    23 National scheme for local authorities.

[^13]:    24 This situation arises only if there is a direct interconnection between the MNO and the platform provider. This route is often cheaper for the platform provider than using a transit provider.

