



CERP

Working Group Economics  
PT Universal Service and its Financing

Guidelines for Calculating the Net Cost of the  
Universal Service Obligations

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## 1 Preface

At the CERP Working Group Economics meeting in Vienna May 2007 the WG discussed the difficulties when calculating the net cost of the USO. The PT Universal Service and its Financing had in its two reports *PT Universal Service and its Financing - Final draft*<sup>1</sup> and *Final report – Second step. Calculating the burden/benefits of the USO*<sup>2</sup> found that only a few CERP members had made any calculations of the net cost of their USO. This though the main part of the members has used one or more means to finance it. The process illustrated a lack of guidance. The importance of exchanging information/experiences within CERP as an essential basis for the development of the regulatory role was stressed at the meeting.

The issue of how to calculate the net cost to prove an eventual unfair financial burden for the USP had become even more important in the light of the European Commission's proposal of October 2006 to amend Directive 97/67/EC to provide the full accomplishment of the internal market for postal services within EEC/EEA. It was therefore decided that the PT as a third step in its work would arrange a brainstorming session on this topic at a joint PT and WG meeting in Zürich in August 2007.<sup>3</sup> The purpose was to discuss and eventually suggest some guidelines for the CERP members of which aspects could be considered when calculating the burden/benefits of the USO. The result of this and two more WG meetings and written contributions from WG and PT members underlie this report.

Members of CERP who are also members of the European Communities have to act in accordance with the EC Treaty and European Law generally. Only the European Court of Justice (ECJ) can definitely interpret whether Member States have acted in accordance with this principle in any particular case. These guidelines set out CERP's view of best practice and European law, and CERP Member States may decide if they want to use these guidelines or not. EC Members should take their own legal advice to ensure that their proposed actions are in full compliance with European Law.

The guidelines are deliberately written on a general level and don't include any numerical analyses. The reason for this is to make them applicable to all CERP members and their different conditions. The report consists of five main parts:

- an introduction,
- a survey of different applicable calculation methods,
- a discussion of which variables should be included in a calculation and how to value these,
- examples of important market benefits to be taken into account in a calculation,
- a final discussion how to handle the result of the calculation.

The Appendices of the report are meant to clarify some specific topics more thoroughly.

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<sup>1</sup> PT Universal Service and its Financing - Final draft, PT Universal Service and its Financing, 26 October 2006, <http://www.cept-cerp.org/cerp/pdf>

<sup>2</sup> Final report – Second step Calculating the burden/benefits of the USO, PT Universal service and its Financing 31 October 2007, <http://www.cept-cerp.org/cerp/pdf>.

<sup>3</sup> Invited to the meeting was also Antonia Niederprüm who presented “Calculating Net Costs of Universal Service Obligations in the Postal Sector, Practice in Europe”, a study made for WIK-consult 2007.

## 2 Introduction

### 2.1 Universal Service

The basic concept of universal service, as defined in most European countries and by the European Commission<sup>4</sup>, refers to a set of requirements which should be satisfied throughout the European Union by the bodies providing certain services of general economic interest (post, telecommunications, energy, transport etc). Central to those requirements is the objective of guaranteed access to essential services at affordable prices. The concept has been evolved by the European Commission through extensive discussions on a sector-by-sector basis and has been implemented through various sector-specific legislations, including the Postal Directives.

The European legislation and the relevant case-law make a distinction between universal service provision and universal service obligations.

#### 2.1.1 Universal Service provision

In accordance with Article 295 of the Treaty, as interpreted by the case-law of the Court of Justice and Court of First Instance of the European Communities, it is irrelevant from the viewpoint of Community law whether such services of general economic interest are operated by public or private undertakings. In a fully functioning internal market regulatory intervention to ensure the provision of such universal services would only be necessary if the market as a whole does not provide them. EC Legislation normally provides for the designation of one or more universal service providers when this is not the case.

So far, as Postal Services are concerned, the original Postal Directive 97/67/EC established a preference for the provision of the universal service through the designation of universal service providers. The third Postal Directive 2008/6/EC gives Member States greater flexibility to determine the most efficient and appropriate mechanism to guarantee the availability of the universal service, while respecting the principles of objectivity, transparency, non-discrimination, proportionality and least market distortion necessary to ensure the free provision of postal services in the internal market. Specifically it provides that Member States may apply one or a combination of the following:

- the provision of the universal service by market forces,
- the designation of one or several undertakings to provide different elements of the universal service or to cover different parts of the territory and
- public procurement of services.<sup>5</sup>

Universal service normally extends only to a minimum set of essential services within a sector.

In the case of postal services the Postal Directives specify in broad terms the scope of universal service, e.g. daily collections and deliveries, access points which meet the needs of users, weight limits and contents, and transit time and other quality standards. Member

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<sup>4</sup> COM(96) 443 final

<sup>5</sup> Directive 2008/6/EC Recital 23

States are, however, afforded considerable flexibility in defining the scope of universal service in accordance with the particular needs of users in the state.

On the other hand Recital 18 to Directive 97/67/EC sets out that a distinction must be made between express mail and universal service. It points out that the essential difference lies in the value added (whatever form it takes) provided by express services and perceived by customers, and that the most effective way of determining the extra value perceived is to consider the extra price that customers are prepared to pay. Recital 27 to Directive 2008/6/EC suggests that, to be regarded as services falling within the scope of the universal service, services must display inter-changeability to a sufficient degree with the universal service. It should also take into account the characteristics of the services, including added value features, as well as the intended use and the pricing.

#### 2.1.2 Universal Service Obligations

A universal service must in principle be conducted so as to cover its own costs. However there is the possibility of ensuring the provision of services and activities which a commercial operator would not carry out. This could be done by imposing a universal service obligation on a designated universal service provider, and paying compensation or a subsidy in respect of the same if an unfair financial burden is realised.

In most cases the legislation restricts the extent to which such obligations can be imposed. Annex 1, Part B of the third Postal Directive sets these out as:

- (i) elements of the identified services which can only be provided at a loss or provided under cost conditions falling outside normal commercial standards.
- (ii) specific users or groups of users who, taking into account the cost of providing the specified service, the revenue generated and any uniform prices imposed by the Member State, can only be served at a loss or under cost conditions falling outside normal commercial standards.

Examples of services falling within (i) are given in Part A as:

- a number of days of delivery, *superior to* those set in this Directive, [our emphasis]
- accessibility to access points, in order to satisfy the universal service obligations,
- the tariffs affordability of the universal service,
- uniform prices for universal service,
- the provision of certain free services for blind and partially-sighted persons.

According to the ECJ<sup>6</sup> the requirement (ii), that the net cost of universal service provision must be based on the costs attributable to end-users to whom services can only be provided at a loss or at prices falling outside normal commercial standards, calls for selectivity in determining which customers form the basis of the calculation of the net cost of universal service provision. It does not authorise the inclusion in that basis of assessment of e.g. all residential customers, irrespective of their situation.

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<sup>6</sup> Case C-146/00, Commission of the European Communities v French Republic

It should be noted that it is only services falling within the scope of universal service that can be subjected to a licensing scheme, and as a condition of such a licence be required to contribute towards the financing of universal service obligations if required.<sup>7</sup>

## 2.2 The purpose of this paper

The purpose of this paper is to identify the core critical issues that have to be considered when calculating the net costs of universal service obligation (USO). Measuring the cost of the USO is a complex exercise in terms of both the theory behind the concept and the practicability of the methodologies available. Therefore, at European level there is a need to establish a series of guidelines to inform NRA's work in this regard.

The net cost of universal service is to be calculated as the *difference between the net costs for a designated universal service provider of operating with the universal service obligations and the same postal service provider operating without the universal service obligations*<sup>8</sup>. The calculation shall take into account all relevant elements, including any market benefits which accrue to an undertaking designated to provide universal service, the entitlement to a reasonable profit and incentives for cost efficiency.

To be able to measure the full cost of implementing a USO it is necessary to establish the costs that any designated universal service provider (USP) would have chosen to avoid, had there been no USO. This should be made separately for the elements included in (i) and the specific users or groups of users included in (ii) mentioned above

The guidelines in this paper are written in a general level. It is up to the respective country to decide whether more detailed specifications would be appropriate based on the national circumstances.

It is important not to take into account the effect on the USP of other changes such as the impact of market opening on profit margins, market share etc. when calculating the net cost of the USO.

## 3 The USP business strategy

To be able to calculate the cost/profit of the USO a reference scenario should be determined. That means determining those services and their features that would no longer be provided by the current USP without the USO. The reference scenario should be proposed by the USP and assessed by the NRA. This is in accordance with the directive which clarifies the responsibilities in Annex 1 Part B<sup>9</sup>: "The responsibilities for verifying the net cost lies with the national regulatory authority. The USP(s) shall cooperate with the national regulatory authority to enable it to verify the net cost." The USP will be asked to develop a scenario in order to determine the behaviour of the universal service provider if no universal service obligation would be imposed on the company.<sup>10</sup> This to be able to specify which services it wouldn't offer if it didn't have the USO. The scenario will take

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<sup>7</sup> Directive 2008/6/EC Article 1(10)

<sup>8</sup> Directive 2008/6/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 February 2008, Article 1 (25) Annex 1, Part B.

<sup>9</sup> Directive 2008/6/EC, Article 1 (25) Annex 1 Part B.

<sup>10</sup> This is also in accordance with the directive Article 1 (25) Annex 1 Part B which states "Due attention is to be given to correctly assessing the costs that any designated universal service provider would have chosen to avoid, had there been no universal service obligation."

into consideration different variables like: specific national conditions, products, services, pricing, frequency of delivery, postal networks (post offices, letterboxes, reduced opening hours etc) and the competition in the market.

The framework has to be identical for the scenario as for the current situation, particularly in respect of the underlying degree of competition and efficiency. If not, the calculated change of operating profit represents the costs of liberalisation rather than the net cost of the obligation. Adjustments of the reference scenario in accordance to market and contemporary technology changes could be made when requested by the USP.

## **4 Calculation**

### **4.1 How is the net cost/profit calculated?**

To be able to determine the actual net cost / profit the USP should use the defined USO in the relevant country as a starting point. After that the USP should define which of the universal services it wouldn't continue to offer if it didn't have the USO. The more general the obligation is defined, the more likely it is that the operator has positioned itself on the market independent of the fact that it is the designated USP. Legal provisions and minimum standards to consider are for example: delivery frequency, accessibility to access points, the tariffs affordability, uniform prices, and provisions of certain free services for blind and partially-sighted persons.<sup>11</sup> Determination of additional universal services above the minimum standards should also be made, though their costs and profits should not be part of calculation of net costs. They indicate that the USP would probably provide the services even if it didn't have the USO.

The net cost represents the difference between the costs and revenues<sup>12</sup> achieved in the current situation, having the universal service obligation imposed, and the costs and revenues which would be obtained from the reference scenario. For example, if it is established in the reference scenario that the USP will reduce the frequency of delivery to 3 days a week for 20% of the national territory, the net result would represent the changes in revenues and costs incurred by the USP with a 5 days a week frequency of delivery for the whole national territory. The same rationale is applied with every other aspects of the service level: number of post offices, range of products, geographical coverage, quality of service, uniform tariffs etc.

### **4.2 Generally discussed methods**

Fully Distributed Costs (FDC) Method is generally used in order to calculate the costs of services. When trying to find a way to measure the net cost/profit of the USO, several methods have been discussed. Among these are Net Avoidable Cost (NAC) Method, Entry Pricing Cost (EP) Method and Profitability Cost Method, see Appendix 1 and 2. All three methods have their advantages and disadvantages which should be considered as the methods could be inadequate when calculating the net cost of the USO.

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<sup>11</sup> Directive 2008/6/EC, Article 1 (25) Annex 1 Part A.

<sup>12</sup> Also intangible assets and market benefits.

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### 4.2.1 Fully Distributed Cost (FDC) calculation

At the moment many postal universal service providers are using the Fully Distributed Cost accounting method<sup>13</sup> to prepare separated regulatory accounts for their postal operations. It should in this context be noted that universal service providers generally operate a common network for the provision of universal and non-universal postal services. The financial results for specific services therefore depends on the correct allocation of common costs in accordance with the principles set out in Article 14(3)<sup>14</sup>

Some operators argue that if the separated regulatory accounts show an accounting loss for the universal services that is equal to the net cost of the USO. This is not the case as a calculation of the net cost shall take into account all relevant elements, including any market benefits which accrue to an undertaking designated to provide universal service. Furthermore it shall include the entitlement to a reasonable profit and incentives for cost efficiency (se chapter 2.2).

As recital 41 of Directive 2008/6/EC points out, separated regulatory accounts may be one of the inputs into net cost calculations. The separated regulatory accounts can be adjusted so that they reflect the costs that would have been incurred by a well run operator, adequately provided with resources. Important to note is though that it is not the loss attributed to all the universal services that should be calculated, but rather the costs that any designated universal service provider would have chosen to avoid.

### 4.2.2 Characteristics of the methods generally used to calculate the net cost

#### Net avoided Cost (NAC) Method

The Net Avoided Cost calculates the difference in a monopolist's operating net cost/profit with and without the universal service obligation. This method is basically in line with the Directive (see above), but it has some shortcomings which are highlighted in the following.

The NAC Method focuses on the recipients and not the customers i.e. the senders paying the postage. This means the method for example concentrates on which routes or addresses the operator wouldn't deliver to if it didn't have the USO. In reality a commercial and business minded operator would concentrate on where their customers (big companies, the state, communities and so on) would like to have their postal items delivered.

Another weakness with the NAC method is that the result of the calculation depends on the definition (size) of segments. An operator may earn a profit on delivering mail to all households in a postcode area, but carry a loss on some of the mail routes within the same postcode area. The total calculated loss would therefore be bigger if dividing segments into mail routes rather than in segments of postcode areas.

Serving an individually unprofitable market segment can increase the profits of other market segments. If this increase in profits exceeds the net cost of the individually unprofitable market segments, the monopolist would serve these market segments even if not obliged to do so.

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<sup>13</sup>CERP Report "CERP Recommendation on best Practices for Cost Accounting Rules" defines Fully Distributed Costing as "A method of cost accounting in which the sum of all costs is allocated to the cost objectives. This summation of direct and allocated costs for products or services must be done in a way so that no common costs are left unallocated", <http://www.cept-cerp.org/cerp/pdf>.

<sup>14</sup> See also page 95-98 in "Main Developments in the Postal Sector (2004-2006)" by WIK-consult, Bad Honnef May 2006, [http://ec.europa.eu/internal\\_market/post/doc/studies/2006-wik-final\\_en.pdf](http://ec.europa.eu/internal_market/post/doc/studies/2006-wik-final_en.pdf).



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The discontinuation of a service for only particular customer segments can involve high costs. If these costs are too high, the operator would probably decide to continue serving these market segments even if it didn't have the USO. For this reason, the net cost of serving such unprofitable market segments wouldn't be a part of the Net Avoided Cost either.

### Entry Pricing (EP) Method

The method shows the sum of the USO cost and the monopolist's profit which will be lost when competition is introduced i.e. the cost of liberalization for an efficient monopolistic service provider and not exclusively the USO cost. This means the method is *not* compatible with the Directive which explicitly says that the net cost of the USO is to be calculated as the difference in cost for the operator with or without the USO.

Furthermore enhancing efficiency is difficult and costly and the EP Method also suffers from the same weaknesses as the NAC Method when it comes to defining unprofitable market and customer segments.

### Profitability Cost Method

In this method the Profitability Cost is equivalent to the additional costs a service provider in a competitive setting incurs due to the provision of universal service. The Profitability Cost equals the sum of Net Incremental Cost and Foregone Revenue.

As many of the European postal operators are or have been former monopolists which aren't operating in fully competitive settings this method is not really useful. Furthermore the data required for an operational model is difficult to obtain: in addition to the costs, the expected prices and demand functions for all services must be estimated.

Taking these characteristics or shortcomings into consideration we can see that none of the above mentioned methods are exhaustive when calculating the net cost of the USO why a more comprehensive approach has to be applied.

## 4.3 The reference scenario / Commercial Approach method<sup>15</sup>

With the above mentioned calculating methods and their shortcomings in mind and how the calculation should be made in accordance with the Directive, we have sought for another method. The method had to be based on the NAC Method as a starting point, but take a wider perspective into account, including the fact that the operator is a commercial business which is depending on its customers, i.e. the senders. What we found was the Commercial Approach Method. This method shows the likely responses by the USP if the USO was abolished. It doesn't include effects on an eventual liberalization or changes in the USP's efficiency. The method could be described as a four step process.

### 4.3.1 First – what would the USP do if there were no USO?

It is sufficient to know the order of the costs to be able to assess whether the USO constitutes an unfair financial burden which must be compensated. Calculating the USO cost require a number of estimates that involves uncertainty. However, this uncertainty is not making it impossible to calculate the USO cost in a meaningful way.

## Essential questions

- Which costs would the USP chose to avoid if it didn't have the USO?

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<sup>15</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 21-27.

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- Does the USP voluntarily offer more than required according to the USO?
- Do the competitors offer more than required from the USP by the USO?
- Do postal operators in other countries offer more than required by the USO in the actual country, although the requirements in their own USO are lower?
- Which constraints would the USP in all events have as a dominant under the national competition act?
- What are the pros and cons of offering the service?

The USO requirements may be divided into two groups: Requirements that may constitute a significant constraint on the USP and requirements that hardly constitute any real constraint. Which group these requirements, such as: geographical cover, six days delivery and free services for blind and partially-sighted persons, product requirements, price requirements, post office- and letter box requirements and stamp and logo requirements, refer to depends on the national legislation and what competitors offer.

### 4.3.2 Second – calculate the cost the USP would save if there were no USO

Describe the relevant services the USP would not provide in the absence of the USO. Then calculate how much the USP's total costs would decrease with each of the commercial options defined.

To be considered by the USP is that a product or service, which in the current situation incurs losses, can become competitive if some qualitative adjustments are provided. Examples of adjustments could be reduced frequency of delivery, reducing the number of post offices accepting the respective product or service. Discontinuation of the product or the services does not always represent a solution. Fixed cost will be redistributed on the profitable products or services, which risks affecting the profit margins.

### 4.3.3 Third – calculate the corresponding revenue

Calculate the income that the USP would lose with each of the alternative commercial options (revenue). The revenue includes a direct and an indirect element. The direct element is the revenue on products which would disappear immediately and the indirect element is revenue on other products that may disappear as a result of that. Example: The direct loss of revenue if going from six days to five days delivery would be the volumes lost from the sixth day. This particularly concerns direct mail which requires Saturday delivery. The indirect loss of revenue would then be the volumes lost the remaining five days if one or more of the operator's customers decide to buy its services from a competitor instead who offers six days delivery.

### 4.3.4 Fourth – estimate the net cost based on the second and third steps

Annex 1 in the directive clarifies that “The overall net cost of universal service obligations to any designated universal service provider is to be calculated as the sum of the net cost arising from the specific components of universal service obligations, taking account of any intangible benefits.”<sup>16</sup>

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<sup>16</sup> Directive 2008/6/EC, Article 1 (25) Annex 1Part B.

#### **4.4 Activity based cost model**

When the USP has defined the reference scenario and its consequences in an overall picture the next step is to calculate the difference in each variable in a more detailed level. To simplify more thorough analysis of the USP's cost accounting when estimating the financial parts of the burden / advantage of the USO the USP could be required to deliver separated accounts<sup>17</sup> based on the ABC model. The basis for separated financial accounts must be audited by an independent body which certifies the data or scrutinized by the NRA. The net cost calculation needs consistent approaches in cost accounting. The actual CERP Recommendation on best Practices for Cost Accounting Rules clarifies such common principals.

### **5 Variables to consider when developing a viable and credible reference scenario**

After having decided on the calculating model next step is to describe the USO requirements and examine how the USP could chose to adapt its business in the absence of the USO, decide which services wouldn't be offered, and then calculate how much the USO thus costs. The essential variables as we have seen are geographical coverage, products, prices, quality, delivery frequency, postal network and accounts, but which of these will constitute a cost?

#### **5.1 Geographical coverage**

The directive prescribes in Article 3 that "Member States shall take steps to ensure that the universal service... includes one delivery to the home or premises of every natural or legal person or, by way of derogation, under conditions at the discretion of the national regulatory authority, one delivery to appropriate installations." In this way there is a possibility to allow exceptions from total geographical service coverage in each member state.

To offer geographical coverage in the whole national territory or a whole region can be a burden for the USP, but also an advantage. At one hand unprofitable routes<sup>18</sup> may not be proposed by a free operator in a competitive environment and the level of coverage could strongly vary with the delivery characteristics across the territory. The US net cost could therefore at first sight appear to be the result from the sum of unprofitable routes. Nevertheless it should be pointed out that ubiquity also is a commercial advantage because the large transmitters such as value paper commercials and large banks provide services or products which require national coverage. This advantage has also to be valuated in an eventual estimation.

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<sup>17</sup> In accordance with the directive 2008/6/EC, Article 14, paragraph 2.

<sup>18</sup> Route means the route of a postal item representing its category

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### 5.1.1 Example: Mail delivery to the entire country<sup>19</sup>

#### Advantages

- Most important competitive advantage compared to other operators but also to other services as e-mail (if you can't get e-mail or those other services in all parts of the country).

#### Disadvantages

- The USP has to cover areas with higher delivery costs.

#### Option if not USP

1. Discontinuing delivery to small islands, for example. Calculate how many less working hours etc. this scenario would lead to and sum the costs. Conclusion: Is the cost difference significant? Admitted exceptions to the general service level in certain geographic areas have to be considered.

2. Discontinuing delivery to the percent of the population with the highest delivery costs. Calculate the USP's delivery costs in each postcode area. Then compare it with the profit from the possibility to use zonal pricing on bulk mail (which the operator will be permitted to apply if it offers nationwide services) and the lost revenues because of drop in sales if it wouldn't offer nationwide services.

#### A key question to the USP is:

What degree of national coverage would the postal operator support in a commercial environment? Are there any geographical zones that it wouldn't support? The design of the distribution and collection network is to be derived from the business strategy.

## 5.2 Delivery frequency

According to the Postal Directive the USP has to guarantee the USO every working day and not less than five days a week. Would a postal operator without US constraints reduce the delivery frequency in some regions to cut costs, even if it causes some traffic loss due to the reduction in the quality of services? The comparison between cost savings and the loss of income could be a good approximation of the cost of this universal service constraint.

### 5.2.1 Three days delivery

A survey in this direction was conducted by F. Boldron, D. Joram, L. Martin and B. Roy, who were trying to answer to the following question: what would be the savings in the different countries if they changed their current delivery behaviour to reach a distribution frequency of three days a week?<sup>20</sup> The Roy model determines the unit cost which is based on three variables: the population density, the average people number per household and the traffic per person. It could then be possible to determine the volume of items which is not profitable under such conditions.

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<sup>19</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 29-39.

<sup>20</sup> "From the size of the box to the costs of universal service obligation : a cross-country comparison"

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### 5.2.2 Six days delivery

An even more relevant matter could be to calculate the net cost of mail delivery six days a week. As the regulation is constituted today the main CERP countries USP's have to provide five days delivery a week, but nevertheless many USP's even offer delivery six days a week.

What are then the effects of six days delivery?<sup>21</sup> See also Appendix 3.

#### Advantages

- Possible to deliver mail that must arrive to the recipient on Saturday such as Saturday newspaper and advertising.
- More competitive product
- Less mail volumes during the week
- Increased revenues
- High service-level imply increased demand

#### Disadvantages

- More costs due to more visits, more working time and more postmen.
- If other operators offer five-days delivery it could be assumed that the operator would choose to reduce its service level to five days delivery if it didn't have the USO.

### 5.2.3 Five days delivery

Other parameters which would be affected if the USP would only offer five days delivery<sup>22</sup>:

- mail collection
- sorting and preparation
- route time
- visit time
- increase in the mail volume Friday and Monday
- more deposits
- increase of visit time
- transport and capacity costs
- cost from negative publicity
- decrease in revenue from newspaper in the absence of Saturday delivery
- decrease in revenue from unaddressed mail for the same reason

#### A key question to the USP is:

Would there be any changes in the postal operator's delivery frequency if it wasn't the USP?

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<sup>21</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 15, 40-41.

<sup>22</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 45-55.

### 5.3 Products/Services

The universal service is generally defined in the national legislation and in the Directive by weight characteristics. Article 3 paragraph 4 says “Each Member State adopts the necessary measures so that the universal service at least includes the following services: collection, sorting, transport and delivery of postal items up to 2kg; collection, sorting, transport and delivery of postal parcels up to 10kg; services related to registered items and insured items... Member States shall ensure that postal packages received from other Member States and weighing up to 20kilograms are delivered within their territories”.

In the directive Annex Part A it is specified that the obligation also may include the provision of certain free services for blind and partially-sighted persons. This is a direct effect from what is prescribed in the directive’s Annex Part B (i) and (ii). It says that the calculation of the net cost **is to be based on** the costs attributable to services, or groups of users, which can only be provided or served at a loss or under conditions falling outside normal commercial standards.

Products indirectly linked to the US obligations should also be considered. Competitive products that can only be provided by the US operator should be defined and included in the calculation. For example: sale of stamps to philatelists and mail redirection during holidays or when moving out.<sup>23</sup>

An easy way to find out which services are commercially attractive in the market is to see what the competitors offer. We could suppose that at least products offered by operators who have the choice are profitable. It has often been noticed that the products requiring a lot of follow-up human handlings, such as registered items, are expensive. On the other hand, it is sometimes the quality constraint regarding delivery time which causes the additional cost. For example: a daily newspaper which must imperatively be delivered very early in the morning requires more costly ad hoc rounds. In the reference scenario products need not necessarily to be discontinued entirely. Amending service levels may be the more suitable solution. In any case the effects on costs must be well-investigated and finally considered in the calculation, for example indirect effects on costs and revenues on residual services.

#### 5.3.1 Prices

According to the Postal Directive Article 6 the USP shall give up-to-date information regarding prices to all users and according Article 5 that it should be made available without any form of discrimination. How does the commercial business strategy affect the pricing of the postal operator? To consider are changes in the price structure, i.e. geographically varied against uniform prices, as well as alterations in prices itself. Further pricing flexibilities of interest should be defined. The USP also have to consider other undertakings not caused by USO, with impact on the commercial business scenario that could have any impact on the net cost calculation.

#### 5.3.2 Examples

Examples of services which probably are not very competitive are services for blind and partially sighted persons and single mail letters. The cost for the USP to offer the first

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<sup>23</sup> In France, information collected by the USP on changes of address and redirection services for addressee change of address are included in the so called “facilities owned or controlled by the USP that are essential to the pursuit of the licence holders”, as well as the postcode directory, together with the key matching code to geographical information on roads and addresses. (CPCE, art. L. 3-1.)

mentioned services could for example be compared with the experience from other countries.

The price for single mail letters is depending of the regulation such as an eventual price cap and uniform prices. In this context it should though be taken into consideration that the price cap is not related to the USO, but to the fact that the operator would continue to have a de facto monopoly on single letters even without the exclusive right. As long as the operator has a de facto monopoly it will probably be subject to price regulation just as other monopoly companies. The probability that the USP wouldn't offer uniform tariffs even if it didn't have the US responsibility is rather low for three reasons. Firstly the competition in the single mail letter market is often very scarce. Secondly it could confuse the customers and therefore create dissatisfaction. Thirdly the benefits of price differentiation are quite limited, especially in countries with a price cap.<sup>24</sup>

### Key questions to the USP are:

Which services and service levels wouldn't a commercial postal operator provide and which customer groups wouldn't the postal operator serve without obligation compared to a USP?

How would the operator change its prices if it didn't have the USO?

#### **5.4 Quality**

A quality standard may be imposed on the operator and obliges him to make investments or to sort at night. But how do we determine the level of quality that would be chosen by the operator to attract his customers?

One possibility is to benchmark the postal sector. Do competitors offer D+1? Which kinds of parcels are offered? What is the delivery time of daily papers? Do competitors accept non standard, non-automated formats? Another solution is to compare the USP's delivery standards and the standards required by the USO. If the speed of the USP's delivery exceeds the requirements by the directive or the national legislation we can conclude that they don't constitute a burden for the operator. Many of the tasks that are carried out by the USP would probably be the same without the USO. The designated US operator's complaint department could be compared with a standard complaint department at a competitive operator, when determining if there is a difference in costs when handling their complaints.

There are three arguments why the USP probably would keep offer the same quality standards as regards service level and reliability of delivery even without the USO: Firstly, it is important for the USP to offer a quick and safe service to be able to compete with other substitutional services such as e-mail. Secondly, many USP has a higher level of reliability of delivery than required by the USO. Thirdly, quite often the competitors guarantee the same service level as the USP.<sup>25</sup>

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<sup>24</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 66-70.

<sup>25</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 71.

Key question to the USP is:

Would the USP change its quality standard if it wasn't the USP?

**5.5 Postal network**

In accordance with the national legislation in most CERP countries and with the postal directive Article 3 paragraph 1 shall: "Member States ensure that users enjoy the right to a universal postal service involving the permanent provision of quality basic postal services at all points in their territory, at affordable prices for all users." In paragraph 2 is said: "To that end, Member States shall take steps to ensure that the density of the points of contact and of the access points takes account of the needs of users."

When discussing a credible business scenario for the former USP the postal network could be split in two: the network made up of access points and the network called retail network which is made up of sales outlets and different sales offices. What are the real constraints for the USP when considering its postal network?

5.5.1 Letter boxes

As we could see there are no requirements in the directive regarding the number or positioning of letter boxes for collection. It means that the USP can be quite flexible when fulfilling its requirement. The national USO could though include a certain number of letter boxes or points of contact. In that case there are some ways to value the need of the already existing letterboxes. The USP could for example measure the volume collected in each letterbox, set a comparative international indicator by counting the number of points of contact/letterboxes per x number of inhabitants. There is also the possibility to determine a fixed clearance cost per box and day and decide that, under a given volume of letters daily collected per box, some boxes are unprofitable.

5.5.2 Post offices

The number of post offices or geographical frequency could be imposed by the national US obligation (the EC directive doesn't stipulate a fixed number of contact points/post offices). Which hypothesis should then be applied to identify the post offices that an operator without USO wouldn't have chosen to open? For example could a frequentation level, under which a post office is not profitable, be determined and linked to the population density of the region where it is settled. The US cost would then result in the sum of the deficit of the unprofitable offices. A comparison could also be made to see if the postal operator offers an unnecessary quantity of contact points compared to other countries or comparable sectors in countries with similar geographical settings. See Appendix 4.

Something to take into consideration is that the service outlets don't have to be post offices owned by the national post. The USP could replace its service net with post shops and in that way reduce its costs. There is though an important reason for the postal operator to keep a mesh network of postal outlets even if it doesn't have the USO: it is one of the most important channels when delivering parcels in a very competitive market<sup>26 27</sup>

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<sup>26</sup> What is the cost of Post Denmark's universal service obligation, The Danish chamber of commerce, 11-03-2008, page 74-75.

<sup>27</sup> Also see: Accessibility of the postal retail network, social cohesion and economic development: Francois Boldron, Karen Dewulf, Denis Joram, Clémence Panet, Bernard Roy and Olivier Vialaneix, Competition and Regulation in the Postal and Delivery Sector: Michael A. Crew and Paul R Kleindorfer (ED), Cheltenham, UK – Northampton MA, USA, Edward Elgar, 2008, p. 74-59.



Key question to the USP is:

Which access points (letter boxes/post offices) would the postal operator discontinue to offer if it didn't have the USO?

**6 Is the reference scenario proposed by the USP commercially viable?**

The NRA analyses the scenario proposed by the USP in order to establish if the scenario is credible and commercially viable, as it represents the starting point for estimating a net cost. In case there are doubts expressed regarding some aspects presented in the reference scenario discussions between the NRA and USP are mandatory in order to achieve the most realistic solution.<sup>28</sup> For example, the USP might argue that in a business strategy without the USO the frequency of delivery would be reduced to one day a week for the whole country. Such a measure wouldn't be part of a viable commercial strategy.

**7 Valuation of variables**

To be able to value the weight of the variables indicated in chapter 5 and if they should be included in the net cost evaluation, the USP should determine if they are a product of:

**7.1 Constraint due to the provision of the postal universal service**

7.1.1 Endogenous constraints

Are the constraints an effect of a competitive market? If the USP's competitors offer six days delivery it is probable that the USP would offer the same even if it didn't had the USO.

7.1.2 Exogenous constraints

Is the constraint an effect of the USO imposed by law? If there isn't enough demand on the market for a specific product or service and competitors don't offer equal services, the USP would probably not offer the service if it wasn't for the USO. An example could be services for blind and partially sighted people.

**7.2 Business strategy**

Is the cost due to the business strategy and could it lead to increasing income in the long run? An example could be geographical coverage which attracts large customers who wants to reach recipients in the entire country. When offering this service the postal operator can market itself as a one solution distributor.

**7.3 Other constraints**

7.3.1 Town and country planning

Other constraints imposed on the postal operator which shouldn't be included in the USO are constraints due to town and country planning. It could be that the postal office is an important social spot in a small community or a village, where people can do their cashier services, receive their ID cards, get home delivery and so on. The interest to keep the post office would then be more than a postal matter, but rather a political question and a way to

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<sup>28</sup> In accordance with the EC directive which explicitly says that the USP shall cooperate with the NRA to enable it to verify the net cost.

keep the countryside alive. If that is the case, it is questionable if the postal operator should pay these services or if it rather should be taken care of by the community. At the same time it could be an advantage for the postal operator and a natural way to get more customers to visit its office.

### 7.3.2 Public utilities requirements etc.

If it isn't a competitive advantage for the postal operator to meet requirements such as press transport and distribution to secure the inhabitants availability to the press and they are included in the USO, the USP should be compensated. If decisions and undertakings are not due to the USO obligation they shouldn't be included in the estimation of the burden. Examples are the historical costs of the designated USP to cover voluntary performances, pension funds, as well as inefficient costs resulting from former decisions.

## **8 What sort of market benefits are taken into account?**

### **8.1 Legal framework**

The notion of intangible and market benefits is introduced in Annex I Part B of the directive in the following section: "Due attention is to be given to correctly assessing the costs that any designated universal service provider would have chosen to avoid, had there been no universal service obligation. The net cost calculation should assess the benefits, including intangible benefits, to the universal service operator." The Commission does not give any example of intangible benefits though.

### **8.2 Accounting notions**

In accounting the following are usually considered to be intangible assets:

- Costs of restructuring and reorganisation (the USP has been able to invest historically)
- Licences
- Software
- Brands (regardless if it is a registered trademark or not, and more generally the brand image, notoriety, client fidelity)
- Patents, designs and models
- Concessions
- Costs of research and development
- Lease rights
- Trademark and trade name
- Business (or customer base)
- Training costs
- Market share
- Processes, copyrights and similar values
- Sales organisation

Those elements can be divided into three categories: technical intangibles, general intangibles and commercial intangibles. In the context of postal regulation and the new directive the category of commercial intangibles would seem to be the most relevant. These intangible assets include: brands, the trade name and trademark, the sales organisation and market share. In accounting the assessment of those assets can be considered in four

different ways: the assessment of historical costs, assessment of the replacement value, market value and future profits. See also the value of brand through marketing and a comparison with the telecom sector, Appendix 5.

### **8.3 Other intangible benefits**

The universal service provision could attract wider benefits for the USP. In this respect the NRA must evaluate the percentage of new customers who choose the postal services of the USP because of the ubiquity of the network or the guaranteed level of quality. Also, other intangible benefits might be taken into consideration when calculating the net cost. Therefore the demand side and further benefits, such as foregone revenues, costs of dropped services and reduced service quality, have to be taken into account in the reference scenario. Changes in revenues, prices, volumes and market shares have to be simulated or bench marked with other national or international postal operators.

#### 8.3.1 Examples of other intangible benefits to be considered

##### **VAT exemption**

If the USP would be able to profit from VAT exemption even in the future it would have a notable advantage compared to the other postal operators.<sup>29</sup> The most probable is though that this possibility will be eliminated in a liberalised market.

##### **Special rights to marketing**

The USP had the exclusive right to sell USP stamps and to use the postal symbol. These features symbolises a certain quality granted by the state. Without the USO the operator would have to spend much more resources in advertising to achieve such high levels of consumer recognition.

##### **Economies of scale and scope**

The USP can count on cost savings from scale economies where the USO generates volume. This aspect is to take into consideration when estimating the benefits from offering geographical coverage.

##### **Ubiquity**

The value of the advantage to use an already installed network. In many countries the recipient database is owned by the USP. Even if this information would be public owned, there will take lots of resources and effort for competitors to create similar knowledge of local conditions as the USP's postmen have gathered during centuries.

##### **USP customer preference**

Customers often prefer a well known alternative, postal services included. A customer relationship build up during decades could be difficult to compete with for new postal operators in the market.

##### **Interest free loan**

The USP's have indirectly an interest free loan from unused stamps which have been sold over the years. Some have been purchased by stamps collectors, while others have become too old to be used or will never be used as they are lost. The amount of the loan differs between countries, but are in general notable.

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<sup>29</sup> VAT exemption doesn't necessarily be benefit everywhere. In France, for instance, this exemption is accompanied with a tax on wages and salaries, which is very disadvantageous for the USP.

**9 Is the provision of the universal service obligations a financial unfair burden for the USP?**

It is the task of the USP to prove the need of compensation and to calculate the net cost of USO respectively. To enable the NRA the verification of the calculation, in principle and in time, it should use an approach requiring as few data as possible.

The NRA will analyze the current status of the USP's service provision. It is not until the Member State determines that the USOs entail a net cost and represent an unfair financial burden on the USP it is allowed to introduce mechanisms to compensate the undertakings.<sup>30</sup> (Also see Appendix 6) If the reference scenario does not vary fundamentally from the scenario with USO the difference can be ignored. Then the cost of administrating a compensation mechanism probably would cost more than it would help the USP. If the current universal service provision exceeds the requirements of the USO, the designated USO doesn't carry a burden. In such case, compensating a net cost would be anticompetitive. The USP would then be able to use these amounts for improving its service level and not to fulfil the minimum universal service requirements.

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<sup>30</sup> Directive 2008/6/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 February 2008, article 7 paragraph 3.

## **Appendix 1. Methods of Estimating the Cost of the Universal Service Obligation**

Helmut M. Dietl, Andreas Grütter, Martin Lutzenberger University of Zurich

### **Abstract**

The Swiss postal market is being opened for competition. At the same time, the government expects that universal service is continued to be guaranteed. Due to the opening of markets, the incumbent monopolist loses the means to finance universal service. In order to assure the continued provision of universal service, the former monopolist must be compensated for the additionally incurred cost from providing universal service. Under a monopoly, this cost is the Net Avoided Cost. Under competition, it is the Profitability Cost. The cost of liberalization for the incumbent monopolist can be derived through Entry Pricing.

### **1. Introduction**

What is the cost of universal service? In order to answer this question, one has to think about why this question is being posed. In the present environment, the reason for this question is that the postal market is supposed to be opened to competition; yet at the same time, universal service should continue being guaranteed.

What is universal service? Universal service defines the quality, the scope, and the prices of the services that must be provided: Quick and reliable delivery of letter- and parcel-mail must be accessible to everyone at uniform prices. Compliance with universal service obligation is costly for the universal service provider. Hence, the reasoning is that in order to secure the continued provision of universal service, the universal service provider must be compensated for the provision of universal service. The extent of this compensation is supposed to be based on the costs.

At the present time, the competitive situation of the Swiss postal market is a de facto monopoly. The Swiss Federal Council aims to open the letter market to the competition without sacrificing the continued provision of universal service. In order to ensure this continued provision, the former monopolist is being required to adhere to the universal service obligation as before. On the other hand, this obligation is not supposed to apply to the competition: Building an area-wide delivery network can only be done at great expense. Since there is already a working area-wide delivery network in Switzerland, the building of additional area-wide delivery networks would be inefficient. In theory, it is easy to derive the cost of universal service in a liberalized market: It results from the difference in the operating result under competition without any universal service obligation and the operating result under competition with the universal service obligation.

In the following, the most important methods of estimating the costs of universal service are being described. The methods are assessed for their applicability to different questions as well as for their advantages and disadvantages.

### **2. Net Avoided Cost**

The Net Avoided Cost approach to the derivation of the cost of universal service has its origin in telecommunications (OFTEL, 1995). A study on estimating the cost of universal service in the postal sector being conducted at the request of European Commission also made use of the Net Avoided Cost approach (NERA, 1998).

The Net Avoided Cost approach calculates the difference in a monopolist's operating result with and without the universal service obligation. In order to obtain this difference, the services defined by the universal service obligation must be examined individually, and customers must be segmented. Then, it is calculated for which customer segments these services can be offered profitably, and for which customer segments losses will occur. If offering a service to a particular customer segment will result in a loss, one refers to an unprofitable market segment.

If the universal service obligation were discontinued, the universal service provider could save the "net cost" resulting from the unprofitable market segments. This net cost is equivalent to the expenses from the unprofitable market segments less the revenues from the unprofitable market segments. In principle, these savings equal the cost of universal service according to the Net Avoided Cost approach.

In order to obtain a meaningful measure, two refinements must be taken into account. In the first place, serving an individually unprofitable market segment can increase the profits of other market segments. If this increase in profits exceeds the net cost of the individually unprofitable market segments, then the monopolist would serve these market segments even if not obligated to do so. Therefore, this net cost must not be added to the Net Avoided Cost. On the other hand, the discontinuation of a service for only particular customer segments can involve high costs. If these costs are too high, the monopolist again decides to continue serving these market segments even after the discontinuation of the universal service obligation. For this reason, the net cost of serving such unprofitable market segments is not part of the Net Avoided Cost either.

The need for a second refinement results from the political goal to improve the efficiency of public service. Ultimately, public authorities should only compensate for the actual cost that an efficient universal service provider incurs to provide universal service. The technical term for such efficiency is x-efficiency. An x-efficient universal service provider produces the maximum amount possible, given the available resources, and using the best technology available. As a rule, an x-efficient universal service provider can offer universal service at a lower cost than the present universal service provider. In order to calculate the Net Avoided Cost for an x-efficient monopolist, the monopolist's present costs are being normalized to the hypothetically efficient level. Subsequently, market segmentation is done. Then, the relevant cost of universal service can be derived.

It is comparatively simple to derive the Net Avoided Cost. However, in light of the market opening, the Net Avoided Cost approach gives an answer to the wrong question. Securing a monopolist's survival is no longer the only issue. The main issue is to enable an efficient universal service provider to obtain a normal profit under competition. However, the Net Avoided Cost is equivalent to a monopolist's cost of providing universal service, not to the cost of providing universal service under competition.

### **3. Entry Pricing**

Entry Pricing is an approach developed by PricewaterhouseCoopers between 1997 and 1998.

It is described in a survey published by PostEurop (PostEurop, 1998), as well as in two expert contributions (Rodriguez et al., 1999; Rodriguez and Storer, 2000).

Entry Pricing shows a monopolist's decline in profits if the former monopolist has to provide universal service even after the market has been opened to competition. In order to derive this value, the operating result of an x-efficient monopolist who has to provide

universal service is compared with the operating result of a universal service provider who has to provide the same universal service in a competitive setting (see diagram).

The actual calculation requires that first, every service is examined individually and that customers are segmented, similar to the Net Avoided Cost approach. With this information, individual market segments can be determined. Second, each market segment's cost and revenue is calculated. Third, costs are normalized to an x-efficient monopolist's level.

In contrast to the Net Avoided Cost approach, it is now estimated where and to what extent market entry will occur. This fourth step allows to determine what services will be offered by the competition. It requires an estimate of the competitors' costs. This estimate can be used to get an idea about the competitors' likely pricing strategies. From these pricing strategies, the universal service provider's loss in market share can be projected.

Using the information about the projected loss in market share, the revenue from each market segment after the opening of the market can be derived. Additionally, the total cost for the provision of all services before and after market opening is calculated. An efficient monopolist's additional cost to provide universal service even after market opening is equivalent to the difference in revenue less the difference in cost. The difference in revenue is the sum of revenues in a monopolistic setting from the same services which are contested under competition less the sum of revenues from the contested services under competition. The difference in cost is the total cost under monopoly less the total cost under competition.

The value derived by Entry Pricing equals an efficient monopolist's additional cost to provide universal service in a competitive setting. For this reason, this cost is known as the cost of liberalization for an efficient monopolistic service provider. This cost is lower than the actual cost incurred by an x-inefficient service provider. In addition to higher expenses for the provision of services, investments into efficiency enhancing restructuring programmes increase the actual cost.

Compensation according to Entry Pricing must be contingent on giving the former monopolist the entrepreneurial liberties to eliminate the elicited inefficiencies. Enhancing efficiency is difficult and costly. Thus, compensation according to Entry Pricing does not ensure that the universal service provider is able to maintain a normal profit in a competitive setting. On the other hand, it is necessary to normalize the present costs to an x-efficient level in order to give the former monopolist the maximum incentives for enhancing efficiency. The determination of the x-efficient level is a political as well as a practical problem. Politically, job security must be balanced against incentives for cost saving. Practically, it is difficult to obtain an objective estimate of the x-efficient level, and the estimation gives room for manipulation due to lacking comparability.

Entry Pricing derives the compensation the present monopolist would have to get in order to be able to continuously secure the provision of universal service after market opening. However, this value does not equal the actual cost of universal service under competition. How this cost can be theoretically derived in a competitive setting is shown in the next section.

#### **4. Profitability Cost**

In a competitive setting, the theoretical cost of universal service equals the additional cost that a universal service provider incurs under competition due the universal service

obligation. This theoretical cost is discussed in expert contributions by Cremer et al. (2000) and Panzar (2000). Cremer et al. call this cost the Probability Cost.

In order to derive this cost, a benchmark scenario must be specified. In this benchmark scenario, the former monopolist must provide universal service under competition without being subsidized. Following the benchmark scenario's specification, the services that are part of universal service which are not offered to all customers are identified. This information allows for the calculation of the additional cost the service provider would incur in order to offer the whole range of universal service to these customers as well. Panzar names this cost the Net Incremental Cost. This Net Incremental Cost is equivalent to the difference in total cost less the additional revenue. The difference in total cost results from the total cost in the benchmark scenario less the total cost after the universal service obligation's introduction. The additional revenue is equivalent to the revenue from those market segments which are served only after the introduction of the universal service obligation.

Without the universal service obligation, a service provider can offer individual services at higher prices than specified by the universal service obligation. Due to the introduction of universal service, the service provider incurs losses wherever the lower prices are not compensated by the increased demand. These losses are known as Foregone Revenue. The sum of Net Incremental Cost and Foregone Revenue equals the Profitability Cost.

Compensation in the amount of the Profitability Cost is in accordance with the principle of performance. The competitive service provider is compensated only for the actual costs that occur as a result of the provision of universal service. Furthermore, it is taken into account that the former monopolist can adjust prices without the universal service obligation.

For this reason, the Profitability Cost approach is highly attractive from a theoretical perspective. However, from a practical perspective, the data required for an operational model is difficult to obtain: In addition to the costs, the expected prices and demand functions for all services must be estimated.

### **5. Conclusion**

The methods for determining the cost of universal service presented give answer to three different questions. The Net Avoided Cost is equivalent to the additional cost that a monopolist incurs due to the provision of universal service. It is comparatively straightforward to determine the Net Avoided Cost. However, in light of the present market opening, it is the wrong approach to determine the compensation for providing universal service.

Entry Pricing shows the extent of the loss in a monopolist's profits if still required to provide universal service after market opening. Entry Pricing lends itself to practical application. For a correct application of the Entry Pricing approach, it is critical to adequately assess the present monopolist's potential for improving efficiency.

The Profitability Cost is equivalent to the additional costs a service provider in a competitive setting incurs due to the provision of universal service. It equals the compensation necessary to allow a universal service provider to fulfill the universal service obligation in the long run.



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## Diagram

Universal Service Obligation and Competitive Scenario

Source: Own illustration

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## **Appendix 2. Calculating the net cost, if any, of universal service obligations**

John Hearn, CommReg, Ireland

### **Available Methodologies**

For the past decade or more there has been intense academic and professional debate about how best to calculate the cost of universal service.

The method that is most consistent with European legislation and case law is the Net avoided Cost (NAC) Method. This requires the identification of the costs that any designated universal service provider would have chosen to avoid, had there been no universal service obligation. This involves applying an incremental cost test to each particular service that would not be provided, or each group of customers that would not be served. The sum of the net losses (incremental revenues less incremental costs) from those services/ groups that fail the test is the NAC of the USO.

Early applications of this methodology assumed that unprofitable parts of an incumbent's activities could be abandoned with no implications for earnings in other business segments. Panzar<sup>31</sup> pointed out that any universal service costing should start from the specification of an unsubsidised market scenario that would prevail in the absence of a universal service obligation. This is, of course, a requirement of Directive 2008/6/EC' which provides that "The net cost of universal service obligations is to be calculated, as the difference between the net cost for a designated universal service provider of operating with the universal service obligations and the same postal service provider operating without the universal service obligations".

The application of this methodology, especially in its simplest form, has been criticised on many fronts<sup>32</sup>, but "there is general agreement nowadays that the NAC approach is appropriate to assess the net burden of the USO on the USP."<sup>33</sup>

An alternative methodology developed by Rodriguez et al<sup>34</sup> is "Entry Pricing". This however measures the forgone contribution as a result of market opening. It is now accepted that this method answers the wrong question "what will be the impact of market opening on an incumbent?" rather than "how much should the USP be paid for providing the Universal Service?"

The "Profitability Cost" of the USO, a alternative methodology proposed by Cremer et al<sup>35</sup>, argues that without the universal service obligation, a service provider can offer individual services at higher prices than specified by the universal service obligation, and that the service provider incurs losses wherever the lower prices are not compensated by the

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<sup>31</sup> Panzar, J., 'A Methodology for Measuring the Costs of Universal Service Obligations', Information Economics and Policy, 12, 2000

<sup>32</sup> See for example 'What is the cost of Post Denmark's universal service obligation' Report for The Danish chamber of commerce by Copenhagen Economics .Appendix A 11-03-2008,

<sup>33</sup> Net costs of elements of the universal service A REPORT PREPARED FOR POSTCOMM Frontier Economics, May 2008, page 74

<sup>34</sup>Rodriguez F., Smith, S. and Storer, D. (1999), 'Estimating the cost of the Universal Service Obligation in Posts', chapter 13 in Crew, M. and Kleindorfer, P. (eds) (1999).

<sup>35</sup> Cremer, H., Grimaud, A. and Laffont, J.-J., "The Cost of Universal Service in thePostal Sector", in: Current Directions in Postal Reform, edited by M.A. Crew und P.R. Kleindorfer, Kluwer Academic Publishers, Boston, M.A., p. 47-68, pub 2000

increased demand. The sum of net incremental cost and Foregone Revenue equals the Profitability Cost.

While this is attractive from a theoretical perspective, the extent to which costs, prices and demand functions must be estimated for all services makes its practical application difficult.

### **Requirements European legislation and case law**

A four step approach is implicit in the guidelines published as part of Article 1(25) of Directive 2008/6/European Commission.

#### **Step 1 The USP should say which services won't be provided**

Firstly it is necessary to establish “the costs that any designated universal service provider would have chosen to avoid, had there been no universal service obligation”. These should be proposed by the USP and assessed by the NRA.

As pointed out by PwC in its 2006 report for the European Commission<sup>36</sup> it is anticipated that an incumbent will naturally continue to provide ubiquitous coverage as a part of its overall mission and value proposition to business customers. In the case of Germany it points out “Moreover, the Postal Act foresees paying for any public tender of a USO service on the basis of total market shares in USO postal products, so at least for the time being DPAG would end up with the lion's share of the cost, whoever provides these services. In the end, it might as well be DPAG.”

This is also consistent with the ruling of the ECJ in the *Chronopost* case:

34. La Poste is entrusted with a service of general economic interest within the meaning of Article 90(2) of the EC Treaty (now Article 86(2) EC) (see Case C-320/91 Corbeau [1993] ECR I-2533, paragraph 15). Such a service essentially consists in the obligation to collect, carry and deliver mail for the benefit of all users throughout the territory of the Member State concerned, at uniform tariffs and on similar conditions as to quality.

35. To that end, La Poste had to acquire, or was afforded, substantial infrastructures and resources (the postal network), enabling it to provide the basic postal service to all users, even in sparsely populated areas where the tariffs did not cover the cost of providing the service in question.

36. Because of the characteristics of the service which the La Poste network must be able to ensure, the creation and maintenance of that network are not in line with a purely commercial approach. .... Therefore that network would never have been created by a private undertaking.

In other words incumbents have inherited ubiquitous networks, established by the state over very many years which private sector competitors cannot hope to replicate. That is a competitive advantage that might be easily given up.

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<sup>36</sup> The Impact on Universal Service of the Full Market Accomplishment of the Postal Internal Market in 2009; Final Report May 2006, Footnote 52

A large number of reports<sup>37</sup> indicate that absent a universal service obligation universal service providers would make very little changes to the services offered. In the case of Norway, for example, the following services might not be provided:

- 15% of the households would receive mail five and not six days per week
- Another 5% would receive mail only twice a week
- The mobile post office-services would be halved compared to the present situation
- The uniform price would not apply to mail and parcels sent to and from Spitsbergen (an archipelago far north at a long distance from mainland Norway)
- Services to the blind would be payable
- Some extra services related to insured and registered mail would not be offered at all post offices

The issue of uniform pricing and the deliveries in “high-cost” areas will need especial attention. Data submitted by Royal Mail to Postcomm shows that delivery costs are in Greater London are 12% higher than the national average<sup>38</sup>, rather than rural areas while a report by the Postal Rate Commission suggested that service would need to be ceased to 45% of addresses to reduce costs by 4.1%<sup>39</sup>

## **Step 2 Costs to be calculated separately for each service**

The guidelines in the new Postal Directive require each specific aspect of the universal service obligations is to be considered separately<sup>40</sup> based on “elements of the identified services which can only be provided at a loss or provided under cost conditions falling outside normal commercial standards” and specific users or groups of users that would not be served by a commercial operator that did not have an obligation to provide universal service. Furthermore according to the case-law<sup>41</sup> it is not permissible to ascribe flat-rate or imprecise values to the components of the net cost of universal service provision, rather than carrying out specific calculations. Also, according to the *Altmark* judgment<sup>42</sup> the calculation should be determined on the basis of an analysis of the costs which a typical undertaking, well run and adequately provided with resources would have incurred, rather than the actual costs of the universal service provider.

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<sup>37</sup> Net costs of elements of the universal service A REPORT PREPARED FOR POSTCOMM Frontier Economics, May 2008

What is the cost of Post Denmark’s universal service obligation? Report for The Danish chamber of commerce by Copenhagen Economics,

The Impact on Universal Service of the Full Market Accomplishment of the Postal Internal Market in 2009; Final Report May 2006

Bergum, Kristin, “The Universal Service Obligation: A Strategic Perspective on Service Level and Cost,” Paper presented at the 10th CRR I Conference on Postal and Delivery Economics, Potsdam, June.2002

<sup>38</sup> Postcomm Stakeholder letter of 2 April 2007, Annex B, Table 3

<sup>39</sup> The cost of universal service in the U.S. and its impact on competition, Robert Cohen, Matthew Robinson, John Waller and Spyros Xenakis 2002

<sup>40</sup> The overall net cost of universal service obligations to any designated universal service provider is to be calculated as the sum of the net costs arising from the specific components of universal service obligations,

<sup>41</sup> Case C-146/00, Commission of the European Communities v French Republic

<sup>42</sup> C-280/00 *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH*

### **Step 3 Offset values of intangible benefits**

As mentioned above (step 1) the postal networks of incumbents are valuable competitive assets which competitors cannot hope to replicate. If however universal service providers do decide to withdraw from certain services, and the calculations at Step 2 should that there is a net cost, the value of the benefits that accrue from designation as universal service provider and possession of ubiquitous networks must be deducted:

“The overall net cost of universal service obligations to any designated universal service provider is to be calculated as the sum of the net costs arising from the specific components of universal service obligations, taking account of any intangible benefits.”

### **Step 4 Consider whether this is an unfair burden**

If after the three steps there is still a net cost there is a necessity to consider whether this represents an unfair burden on the universal service provider. All the studies to date suggest that the costs involved are relatively modest and unlikely to represent an unfair burden. For example the study of the cost of Norway Post’s universal service obligations<sup>43</sup> estimated this as approximately 2% of Norway Post’s total costs. Frontier Economics report for Postcomm<sup>44</sup> suggests that a 2% efficiency target for a four year price control would reduce costs by more than the net cost attributable Saturday collections and deliveries.

In Sweden a Parliamentary committee estimated the costs of providing as somewhere between SEK 115 to 460 million a year.<sup>45</sup> The Committee concluded “When deciding whether or not such an obligation must be considered unreasonably onerous, attention must be given not just to the unprofitable aspects but also to the market advantages that may be associated with the provision of a universal postal service. The committee therefore proposes that a universal postal service shall be procured if this is specially required bearing in mind the costs of providing the service. However, the committee judges that there is no need at present to procure a universal postal service.”

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<sup>43</sup> Bergum, Kristin, “The Universal Service Obligation: A Strategic Perspective on Service Level and Cost,” Paper presented at the 10th CRRRI Conference on Postal and Delivery Economics, Potsdam, June.2002

<sup>44</sup> Net costs of elements of the universal service A REPORT PREPARED FOR POSTCOMM Frontier Economics, May 2008,

<sup>45</sup> Postmarknad\_forandring\_eng\_sammanf\_jan\_05

### Appendix 3. Saturday Collection and Delivery<sup>46</sup>

Dropping Saturday collections and deliveries would be part of a move to operate a mail service over five days, in line with a typical working week. Mail processing and operations that are currently carried out at the weekend would be delayed until the start of the following week. Consequently, for example, Friday's **second class mail** which is currently delivered on Monday or Tuesday **would be delayed** and delivered on Tuesday or Wednesday.

Changes (**falls**) in **market volumes** are likely to affect bulk mail, as Saturday has traditionally been understood to be an important day for mailers and in particular for advertisers. In addition, newspapers and periodicals may be more affected.

The largest **cost savings** in this scenario come from delivery: savings of around 13.3 % of costs are likely to be achievable from outdoor delivery:

- A large part of **outdoor delivery costs** are fixed, and associated with the time taken to walk or drive along a fixed delivery route every day, suggesting the savings could be as high as 1/6, or 16.7 %.
- **However, increased mail volumes on other days** mean that the number of delivery routes might need to increase by around 3.3 % ( $1/6 * 1/5$ ) in order to keep the same average working times.

Further savings are possible in **mail preparation**. A large part of preparation costs vary directly with volumes, but there are also **fixed daily costs** associated with preparing individual walks. Total savings are to be computed after allowing for the increased number of delivery routes.

There are two more modest savings available in collection and transport:

- **Saturday collection costs** would no longer be required. But fewer collections take place on Saturdays than other days (many firms are closed and there is less collection rounds).
- **Reductions in transport costs** are possible by removing the current Friday night flights and increasing utilisation on the transport network during the weekend.

Other changes are smaller. These **cost savings** include savings from smoother delivery volumes, which would **reduce variations in workload** over the week and therefore limit the amount of unproductive time that needs to be paid for. At present, Monday and Tuesday have predictably smaller mail volumes than other days – a result of the low volumes of first and second class mail posted at weekends. These savings are, however, dependent on existing work plans.

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<sup>46</sup> What is the cost of Post Danmark's universal service obligation? Henrik Ballebye Olesen, Ulrik Juhl Møller, Bjarne Brendstrup, Simen Karlsen, Holger Jensen, Claus Kastberg Nielsen, Copenhagen Economics (Client: The Danish Chamber of Commerce), Copenhagen, 11 March 2008, p. 40-62.

Net costs of elements of the universal service, Frontier Economics, A report prepared for Postcomm, London, Frontier Economics Ltd, May 2008, p. 51-54.

**Appendix 4. Benchmark post office network**



**Benchmark: 'operationally necessary'  
post office network**

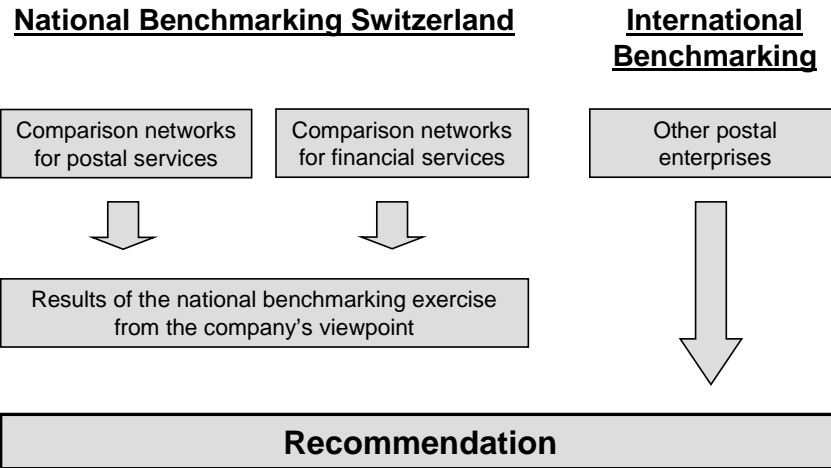
**PostReg**

**Michel Noguét, 20.5.2008**





## Derivation of 'operationally necessary' postal network



Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

1



### National Benchmarking: Comparison networks to postal services in Switzerland

Branch	Benchmark (postal services)
Whole food retail	1'500
Petrol station networks	2'079
Banks	2'170
<b>Arithmetical mean</b>	<b>1'916</b>

The benchmark for optimal access to letter and parcel services is calculated to be **1'916 post offices (incl. agents)**

Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

2





### National Benchmarking: Comparison networks for financial services

Bank	No. of outlets*
Cantonal banks (incl. Coop Bank)	727
Raiffeisen banks	1'162
Credit Suisse	254
UBS	304
<b>Arithmetical mean</b>	<b>612</b>

\* Source: SIC, BC-Bankenstamm, Stand 11/2007, Auswertung WIK-Consult

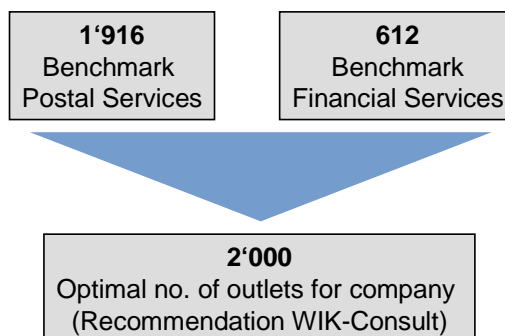
The benchmark for optimal access to post office financial services is calculated to be **612 outlets**

Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

3



### National Benchmarking: Consolidation



The outlet density of an integrated network is higher than the density of a separate outlet network for each product (or each field of activity)

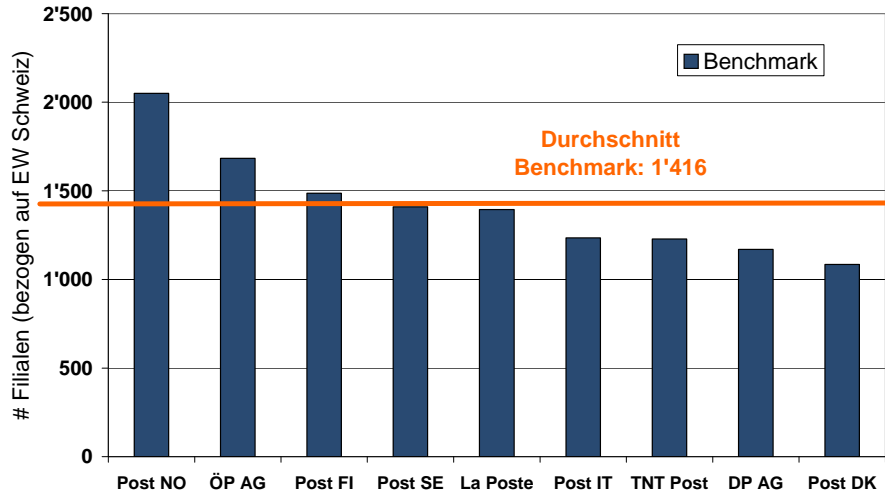
The optimal size of the post office network from the company's viewpoint following the national benchmarking exercise is **2'000 outlets (incl. agents)**

Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

4



### International Benchmarking



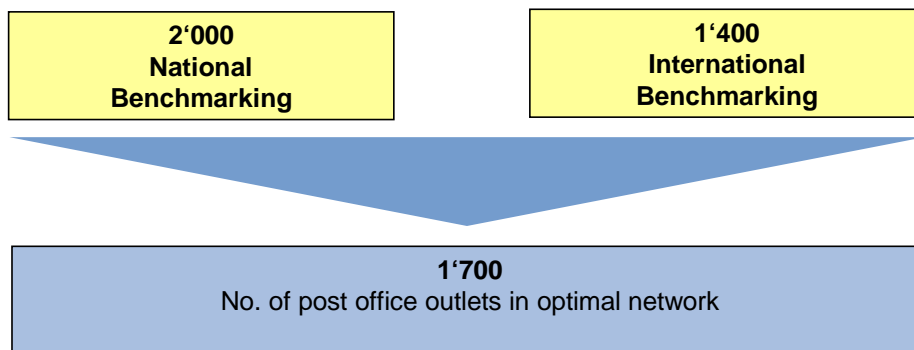
International benchmarking suggests an optimal post office network size of **1'400 outlets (incl. agencies)**

Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

5



### Findings and Recommendation



The number of outlets in an optimal post office network reflects

- ... network optimisation by other postal enterprises
- ... the characteristics of the Swiss network (high purchasing power, high demands in terms of quality, good level of service)

Quelle: WIK-Consult, Bestimmung des betriebsnotwendigen Poststellennetzes, 2007

6

## Appendix 5. Intangible benefits

### Introduction

Directive 2008/6/EC of the European Parliament and Council introduces in annex I, in the context of the guidelines for calculating the net cost, if any, of the universal service the notion of intangible benefits and market benefits which accrue to the designated postal service provider.

This note contains some thoughts on the matter.

### Legal framework

The notion of intangible and market benefits is introduced in annex I of the directive mentioned above in the following section: *“Due attention is to be given to correctly assessing the costs that any designated universal service provider would have chosen to avoid, had there been no universal service obligation.*

*The net cost calculation should assess the benefits, including intangible benefits, to the universal service operator.”*

The Commission does not give any example of intangible benefits. We shall approach the subject from three angles:

- A. General accounting
- B. Marketing
- C. A comparison with the telecommunications sector.

### A. Accounting notions

In accounting the following are usually considered to be intangible assets:

- Costs of restructuring and reorganisation
- Licences
- Software
- Brands (regardless if it is a registered trademark or not, and more generally the brand image, notoriety, client fidelity)
- Patents, designs and models
- Concessions
- Costs of research and development
- Lease rights
- Trademark and trade name
- Business (or customer base)
- Training costs
- Market share
- Processes, copyrights and similar values
- Sales organisation.

Those elements can be divided into three categories: “technical” intangibles, “general” intangibles and “commercial” intangibles.

In the context of postal regulation and the new directive the category of commercial intangibles would seem to be the most relevant.

Those intangible assets include: brands, the trade name and trademark, the sales organisation and market share.

In accounting the assessment of those assets can be considered in four different ways: the assessment of historical costs, assessment of the replacement value; market value and finally, future profits.

### **B. The value of a brand through marketing**

The eighties were marked by a change in the way brands are conceived, writes Jean-Noël Kapferer in the introduction to the latest edition of his book, called "Les Marques, capital de l'entreprise" (Les Editions d'Organisation). In the wave of mergers and takeovers in those years the transactions reached prices out of proportion with the established standards: Nestlé took over Rowntree at almost three times the market value and 26 times its results. The Buitoni group was sold at a price equivalent to 35 times its results. Before that time, says Jean-Noël Kapferer, the usual multiples were 8 to 10 times the results of the company bought. The companies discovered that the brand was their highest capital. One did not buy a company, but a brand. Jean-Noël Kapferer goes on to say that by spending a lot of money on companies of good repute, the buyers actually wanted to buy a position in the mind of potential customers, regardless of their standing. Notoriety, image, confidence, reputation painstakingly acquired over the years was the markets that promised future revenues and justified the prices paid. Indeed, because of its multiple attributions - means of identification, guaranteed reliability and quality thanks to constant innovation, thus inspiring confidence ... - a brand lowers the uncertainty of the consumer, who is willing to pay a higher price and to remain loyal. The brand then generates a certain and regular demand and consequently offers its owner the certainty of present and future profits. The brand thus creates value for the company. In that respect it is a strategic asset. Strategic, though it is intangible.

### **A TRIPLE EXPERTISE**

The analysis of a brand's financial value is part of three worlds, each having their own viewpoint: legal (industrial property advisers, such as Novamark, Nomen Valorimark), financial (the major auditors or accounting expertise firms such as Coopers & Lybrand, Deloitte & Touche, Andersen, Boston Consulting Group) and marketing (consultancies and in particular major organisations). Nowadays those competences are merging for some of them. Audit firms often use the services of marketing consultancies. The latter start to combine marketing and accounting expertise in order to open subsidiaries specialised in the financial assessment of brands. That is what Sorgem has done with Sorgem Evaluation. Since a couple of months the same goes for the Ipsos group, with the partnership between Ipsos Insight Marketing and Societex, a firm focusing on assessment and consultancy for bringing companies together, the purpose of which is to develop an objective method of assessing brands financially, Brand Force. In that analysis system, as in the one of Sorgem, reference is made to the notion of "risk premium". The basis is an accounting and marketing audit: growth rate, volatility of brands, importance of brands in the decision to buy, relative position of the brand as to competing brands, values attributed to the brand by consumers, development potential and capacity of the company to valorise the brand ... This strategic audit is completed with a study of the financial, historical and forward-

looking data regarding the brand or the goodwill assessed. The combination of these activities fulfils two functions: identification of the sources of results that are attributable to the brand (impact of the brand on prices, volumes, profitability) and analysis of the future growth of those results taking account of their risk levels, which have been defined based on the strategic analysis.

### A RANGE OF METHODS

At Coopers & Lybrand, before starting a financial assessment method, four questions are asked in order to determine if it is an asset. Namely: is there legal protection? Is the brand separable from the rest of the company? Is it capable of generating revenue beyond the simple product or to generate revenue in other areas? Do we really have an asset that can be sold as such? Usually a large range of methods is available for making a financial assessment, the main ones being: - evaluation by means of historical costs (investments in development, marketing, advertising over a certain period), - evaluation by means of replacement costs (what would it cost for the company to re-create it), - market price evaluation, - potential profit evaluation (here the problem of separability arises). These potential profits can be measured by using the price premium method, the method of royalties, the method of brand awareness, and the method of separating the supply impact from the market impact. - the multicriteria evaluation of the brand power (market leadership, established nature of the brand, prospects of the current market, quality of the image and of the notoriety, power of the product, extending potential of the brand, internationalisation potential, legal protection of the brand, capacity of the company). In the case of a multicriteria evaluation two schools oppose each other, says Jean-Noël Kapferer: on the one hand that of marketing, which is more empirical and makes a weighted sum of each partial score to obtain a total score, the measure of the brand's power, and on the other that of the financial analysts, using the profile of the brand to establish its business plan and the prospect of the net fluxes expected in the future, starting from the current market of the brand or from a new market for which it is destined. The first one leads to a method of the multiple (indicator of the confidence in the brand) by determining the reference net profit, the extra profit and then the power of the brand. The other one leads to an approach using the cash flows. Nowadays efforts are made to combine the two approaches.

There are many reasons for that. The trend towards a higher homogeneity of European accounting standards will strongly stimulate companies to register their brand in their balance. In France Danone, Pernod, Sanofi, LVMH have already done so. For these companies the brands registered in the balance represent between 10 to 30% of their value. Nevertheless, as a brand is an intangible asset, in France it is not mandatory yet to register it in the balance. Brands are usually valued following mergers-takeovers. Some companies are taken over for their brands at prices that are disproportionate to the value of their net accounting assets. In that case the difference, that price premium, that goodwill, has to be explained to the shareholders.

## **C The approach in telecommunications**

### C1: French Telecom example

#### C1.1. Brand recognition

ARCEP has repeatedly had to work out the benefit of the brand image that is linked to being the universal service provider.

That advantage results from the fact that France Télécom performs universal service tasks: it installs phone booths in all the villages, it provides telephony to any one who asks for it, even in the least populated areas. Because of that France Télécom enjoys a better image among the public and it can profit from that.

A notion associated with that is brand recognition. As France Télécom is present on the entire territory, it is known to everybody, even in thinly populated areas. However, that brand recognition is probably but one factor that contributes to the brand image of France Télécom.

A method often used to calculate the benefit linked to brand recognition is to assess the market price of an equivalent advertising campaign (e.g. of comparable size to the France Télécom logo being placed on non-profitable public phones).

- A study carried out by a consultancy and taken up by a number of alternative operators results in an assessment of 91 million euros using a method that is different from the one developed by ARCEP, as it evaluates the advantage linked to brand recognition (publicity on invoices and directories, logo on phone booths ...);

- A study carried out for France Télécom results in an assessment of 11.9 million euros. The method of France Télécom requires, just as the one of the ART, an opinion poll among the subscribers. But unlike the ART method this opinion poll makes it possible to assess a percentage of a number of lines which is applied to a net result (rather than a price premium applied to a turnover). A summary of that study was presented to the ART on 17 March 2003.

The merit of that method is that it is easy to assess, because there is a market price for advertising. In that method however, a permanent and ubiquitous campaign is supposed to be optimal, which is not the case. Therefore, that method inevitably overestimates the advantage concerned.

The method chosen is based on the price premium a subscriber is prepared to pay before migrating to a competitor of France Télécom.

That price premium comes from three effects: the consumer's inertia, the brand image of France Télécom as the universal service provider, the brand image of France Télécom apart from the universal service provision.

The assessment requires a poll to be held among residential subscribers, because companies are considered not to value the fact that France Télécom is the universal service provider. Besides the questions about their consumption and the price premium the persons polled are asked two types of questions:

- Questions about the brand image of France Télécom in the mind of the subscriber (such as: give a score from 0 to 10 to the following statement "France Télécom is close to its customers").
- Questions relating to what the person polled knows about France Télécom's universal service obligations (such as: "Do you think France Télécom has an obligation to install a line to any applicant, regardless of his place of residence?"). The idea is that in order for a subscriber to be able to value the universal service obligations he necessarily should be aware of those tasks. *Estimation of the potential price premium and breakdown into three effects: inertia, image apart from the universal service, and universal service image.*

We try to explain econometrically the price premium attributed by each person polled by means of two factors:

- an image indicator measured as the best linear combination that is statistically representative of the scores given to the image quality of France Télécom not counting the universal service;
- a universal service indicator measured as the best linear combination that is statistically representative of the indices of awareness about France Télécom's universal service tasks.

The parameters are constructed as follows. A multiple correspondence analysis (MCA) is made of the questions asked, an analysis the first axis of which is maintained, i.e. the most representative linear combination of the explanatory variables.

Next a regression of the price premium is made by means of the universal service and brand image indicators, with a weighting based on the total fixed telephony invoice (invoice France Télécom and competitor's invoice, if any):

$S = a + bI_{SU} + cI_{IM}$ , where  $S$ ,  $I_{SU}$  and  $I_{IM}$  are random variables representing respectively the price premium and the indicators of the brand image and of the awareness about the universal service tasks.

This equation can be written as follows:  $S = a^* + b(I_{SU} - I_{SU0}) + c(I_{IM} - I_{IM0})$ , where  $I_{SU0}$  and  $I_{IM0}$  represent the values of the indicators for a subscriber who has no knowledge whatsoever about the quality of France Télécom and for a subscriber who is totally unaware of France Télécom's universal service tasks.

By estimating parameters  $a$ ,  $b$  and  $c$  it is possible to calculate the price premiums:

- the price premium relating to inertia:  $a^*$
- the price premium relating to the awareness about the universal service tasks:  $S_{SU} = -b I_{SU0}$ .
- the price premium relating to the brand image not counting the universal service:  $S_{IM} = -c I_{IM0}$ .

*Estimation of the real price premium and breakdown into three effects: inertia, image apart from the universal service, and universal service image.*

The average price premium calculated above cannot really be "recovered" by France Télécom: it is a potential price premium, which France Télécom could only recover by applying an individual tariff for each user, which would be the higher, the more this user is willing to stay with France Télécom.

It is therefore a matter of determining the price premium France Télécom is able to apply on the market knowing that it offers only a single tariff. That price (premium) is calculated by maximising the (extra) profit of France Télécom knowing the function of demand it is faced with, measured by the curb giving the (extra) turnover of France Télécom based on the price applied. That price (premium) is called the threshold price (premium) and is written as  $S_{seuil}$ .

The impact of the universal service image is then calculated according to the same method as explained above, but keeping only the users who remain customers of France Télécom even though its competitors offer tariffs lower than  $S_{seuil}$  %.

The hypothesis underlying that method is that the price premium that can be incorporated into France Télécom's receipts is measured by supposing that, if there was no "universal service" impact, the curve of demand based on the price would undergo a  $-S_{SU}$  % shift as to price; at first sight the higher receipts of France Telecom owing to the "universal service" impact therefore amount to  $+S_{SU}$  % applied to the receipts from the users who are prepared to pay France Telecom  $S_{seuil}$  %, which is more expensive than its competitors.

### **Estimation of the gross and net advantages**

The gross indirect universal service benefits are therefore deduced from the price premium  $S_{SU}$  applied to the residential turnover for basic telephony  $C_R$  of France Télécom (forward-looking or final). The gross benefit equals  $S_{SU} C_R$ .

The net indirect benefits are deduced from the gross indirect benefits calculated above, after deducting any costs relating to promoting France Télécom's image as universal service provider.

### **C1.2. Universal coverage in the area of ubiquitous operation**

According to Communication Com(96) 608 of the European Commission the fact for the universal service provider to have "*universal coverage in the area of ubiquitous operation (i.e. comparatively lower costs than competitors in extending network to new customers)*" is an intangible benefit to the universal service provider.

This benefit is implicitly taken into account in the model for calculating the cost of geographical averaging, through the modelling of avoidable cost. Indeed in that valuation the "passage" of an operator acting under market conditions to the real situation of France Télécom is done at incremental cost. In other words an evaluation is made of the costs that France Télécom would avoid if it did not have to serve non-profitable customers and areas. In those circumstances the economies of scale, which chronologically "benefit" the last subscribers are transferred by the modelling to the non-profitable areas and subscribers.



### C1.3. Life cycle value of certain customers (effect linked to the life cycle)

The description given by the European Commission in its Communication Com(96) 608 of the effect linked to the life cycle value of certain customers, also called the "life cycle effect", relates to two types of phenomena.

On the one hand, the use of a line naturally varies in the course of time depending on the composition of the family who uses the line. For example, the telephone consumption of a couple with children is likely to increase regularly as the children start to use the telephone services, and to drop sharply at the moment when they leave home. That effect, which is specific for each individual line, is actually an effect linked to the life cycle.

On the other hand the average individual consumption of a telephone line increases regularly, at least in volume. This is an effect caused by both the *club* effect (when an extra subscriber is connected to the telephone network, all the subscribers already connected can call that person) and the change in consumer habits, regardless of the *club* effect. This is an overall macroscopic effect.

Therefore, an operator who operates under market conditions may wish to connect an area or a subscriber currently non-profitable in expectation of the future evolution of the costs and revenue.

#### **Individual effect**

The geographical averaging model simulates the development of an operator acting under market conditions. That operator is supposed to only have macroscopic information about the level of consumption in an area where he wants to become active.

That is why he cannot have an advantage linked to knowledge of the life cycle of the subscribers regarded individually.

#### **Overall effect**

The "macroeconomic" effect *a priori* relates to non-profitable areas and public phones.

Revenue from public phones has been decreasing continually since 1998, notably because of the development of mobile telephony, and will probably continue to do so. A public phone that is non-profitable today is likely to be even less profitable tomorrow. Therefore, the advantage linked to the evolution in time of the "value" of non-profitable public phones is zero, in 1998, 1999 and 2002.

For the non-profitable areas a calculated evaluation is necessary. It is possible to take that effect into account by simply extrapolating the total costs and receipts over the duration of the study: only areas that remain non-profitable over that period have to be taken into account. In other words, the advantage linked to the life cycle equals the net cost of the non-profitable areas and subscribers over the year considered, but profitable over the duration taken into account.

The space of time considered is 5 years. This is a space of time usually taken into consideration in this type of study. In its 1997 study OFTEL and also WIK in its report of

October 1997 to the European Commission opted for a 5-year period, for example. AGCOM took 4 years for its estimations of the universal service costs for 1999 and 2000.

Benefits from the processing of subscriber data

The advantage France Télécom gets from the data it has at its disposal, can only be taken into account to the extent that those data only relate to the non-profitable subscribers or correspond to non-profitable areas. As those subscribers are non-profitable, the knowledge of their traffic data probably amounts to only a small advantage.

Taking into account the experience of other European regulators, notably in Italy where the advantage is estimated at 0 in 2001, the advantage obtained from processing the subscriber data is estimated to be 0 for 2001.

## **C2: Belgian Telecom example**

### DEFINITION

Article 1, annex 2, of the Act of 21 March 1991 defines indirect benefits as the whole of benefits that can be estimated financially and enjoyed by an operator by providing a universal service as listed in Article 84, §1, of the Act, including the effects of notoriety on the company's brand or publicity effects.

In its "Communication from the Commission on Assessment Criteria for National Schemes for the Costing and Financing of Universal Service in Telecommunications and Guidelines for the Member States on Operation of such Schemes" the European Commission prescribes that a calculated assessment of the intangible benefits should be considered when calculating the net costs. The intangible benefits are identified by the European

Commission:

- Brand recognition;
- Ubiquity
- Life cycle of particular customers
- Marketing.

In the universal service cost model indirect benefits of an intangible nature are considered to be intangible benefits. However, the benefits of a tangible nature are taken into account in the cost model.

### METHOD

#### 1. BRAND RECOGNITION

The universal service has a positive influence on the position of the Belgacom brand, as well as on the company's reputation. That advantage is evaluated as follows.

#### **Strengthening of the communication efforts**

The status of the universal service provider offers a certain amplification or leverage regarding the efforts Belgacom makes to promote the position of the brand.

Impact= communication budget x "amplification" coefficient

### **Brand loyalty**

The status of the universal service provider strengthens the subscribers' brand loyalty.

Impact= number of subscribers x coefficient of subscribers kept x average margin of a profitable subscriber.

### **Publicity value of the public payphones and universal directories**

Public payphones and universal directories have a certain publicity value because of the consumer's visual contact with the Belgacom logo on the telephone booths and universal directories.

Impact= number of non-profitable payphones x coefficient of payphones x publicity value per day x 365  
Impact= value of a national advertisement

## **2. UBIQUITY**

The universal service provider's ubiquity generates economies of scale regarding the technical costs of the network.

Impact= tangible investment x percentage of economies of scale x coefficient of non-profitable lines.

## **3. LIFE CYCLE**

The effect of the subscriber's life cycle is based on the possibility that non-profitable subscribers become profitable in the future and may continue to be a customer of the universal service provider for a while.

Impact= number of non-profitable subscribers x coefficient of subscribers who become profitable x future average margin of a profitable subscriber x 3

## **4. MARKETING**

This benefit refers to the advantages Belgacom has thanks to the market data it has at its disposal. That advantage is evaluated as follows:

Impact marketing= 'Strategy, Marketing and Sales Management budget x "efficiency" coefficient

## Appendix 6. Compensation for universal service obligations

John Hearn, CommReg, Ireland

For many years there was a lack of clarity as to whether payments to, and other favourable treatment of, universal service providers were subjected to the state aid obligations of the EC Treaty. This was resolved by the ECJ in its judgment in the *Altmark* case<sup>47</sup>. In this case the ECJ held that public service compensation does not constitute State aid within the meaning of Article 87 of the Treaty provided that four cumulative criteria are met:

- First, the recipient undertaking must actually have public service obligations to discharge and the obligations must be clearly defined.
- Second, the parameters on the basis of which the compensation is calculated must be established in advance in an objective and transparent manner.
- Third, the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of the public service obligations, taking into account the relevant receipts and a reasonable profit.
- Finally, where the undertaking which is to discharge public service obligations is not chosen pursuant to a public procurement procedure<sup>48</sup> the level of compensation needed must be determined on the basis of an analysis of the costs which a typical undertaking would have incurred. The undertaking should be well run and adequately provided with means of transport [i.e. resources].

Against this background it is not surprising that in most cases a public procurement process is used to determine the net cost of universal service obligations and the compensation, if any, to be paid to the universal service providers.

For example, in the German Postal Act provides that the “obligation” to provide universal postal services should be understood as a requirement on all licensed providers of such services, and not just on a single USP. The Act (and the PUDLV ordinance) defines the process for assuring the provision of universal services in the event that the market as a whole does not provide these. This process includes designating any enterprise that has a market dominant position in the relevant postal services market (i.e. DPAG) as the USP, as well as allowing a competitive auction to determine which organizations would provide any universal services which the designated USP wished to eliminate or to have subsidised. The new Postal Act in the Netherlands contains proposals to the same effect.

As PwC points out in its 2006 Report for the EC<sup>49</sup> it is anticipated that DPAG will naturally continue to provide ubiquitous coverage as a part of its overall mission and value proposition to business customers. “Moreover, the Postal Act foresees paying for any public tender of a USO service on the basis of total market shares in USO postal

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<sup>47</sup> *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH*

<sup>48</sup> Which would allow for the selection of the tenderer capable of providing those services at the least cost to the community.

<sup>49</sup> The Impact on Universal Service of the Full Market Accomplishment of the Postal Internal Market in 2009; Final Report May 2006, Footnote 52

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products, so at least for the time being DPAG would end up with the lion's share of the cost, whoever provides these services. In the end, it might as well be DPAG.”

However the *Altmark* decision does not prohibit designation of any operator and payment of compensation for universal service obligations, providing the four cumulative criteria are met.

The guidance on the calculation of net costs, if any, of universal service set out in Article 1(25) of Directive 2008/6/EC together with other case-law sets out how this should be done.