



DRAFT ERGP REPORT ON NET COST CALCULATION AND EVALUATION OF A REFERENCE SCENARIO

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1 Net cost of Universal Service Obligation and determination of financial burden

1.1 Background

The concept of the net cost of the Universal Service Obligation starts with an assumption that the provision of the universal service (US) shall be ensured in the most cost-effective manner and the financing of net costs, if any, should be competitive neutral (“the least market distortive” concept). The net cost is to be calculated as the difference between the net costs for a designated universal service provider (USP) of operating with the universal service obligation (USO) and the same service provider operating without the USO (the reference scenario). To assess whether there is a net cost that represents an unfair financial burden the net cost needs to be calculated by taking into account all relevant elements including the benefits of being a USP.

The first step of the activities of the ERGPs work on Net cost of USO –VAT as a benefit/burden has, on an overall level, been to cover approaches and methodologies for the calculation of the net cost.

Based on the theories behind the concept it is obvious that a key issue is the “reference scenario” and the NRAs assessment of this scenario. The assessment of the scenario is a complex exercise in terms of both the theory behind the concept and the practicability of the methodologies available. Therefore at the European level there is a need to present further guidance in these respects and it will consequently be the primary focus of the first step of the activities.

As the VAT privilege provides for one of the remaining distortive effects of the market and is considered as an important barrier to market entry it would be important, if technically possible, to evaluate its net effects (advantage/disadvantage) in view of net cost calculation. This issue will however be dealt with in a second step which will be initiated parallel to the first step.

1.2 Overview and previous experience

Our review of the reference scenario and consideration of options for developing the reference scenario have highlighted a number of complications in deriving such a scenario. Someone commentators have highlighted that these difficulties may be significant, but not sufficient to imply that the use of a reference scenario would not be appropriate. For example, CERP (2008)¹ stated that *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.* None of the literature we have reviewed has considered the detailed approach that should be taken by an NRA is assessing the reference scenario.

¹ CERP PT Universal service and its financing (2008) “Guidelines for Calculating the Net Cost of Universal Service Obligations”.

Nevertheless, over the coming years, as volumes decline, it will become increasingly likely that some NRAs may be faced by applications from USPs to agree a cost of the universal service and to trigger the need for a compensation fund. Given the fixed nature of delivery networks, it could be that inefficient or even efficient operators may not be able to finance the total cost of the USO, and will be economically justified in coming to the NRA with a reference scenario. In that case, the NRA will be obliged to assess the assumptions within the reference scenario in coming to a view around the realism of the proposed scenario.

Any reference scenario will need to include both cost impacts and revenue impacts. We consider below how the NRA may seek to address the assumptions within the reference scenario on each. We have sought views from NRAs across Europe as to the most effective way to address the reference scenario, but as yet there has been little practical experience. One message was consistent and clear, that the intention of a reference scenario and a net cost calculation is not to reward the USP for inefficiency. Any assumption that there is a net cost needs to be based on the assumption of an efficient operator² and needs to be transparent and realistic to be able to be calculated. Where possible, NRAs would seek to use competitive operators or other comparators, but this will often be impractical due to limited delivery competition and difficulty in using international comparison other than for the high-level overview part of any assessment.

In summary, the majority of NRAs have no established approach, and there is little precedent. We would therefore seek to gather views more widely on an approach which can represent a greater consensus of the future mechanism by which a reference scenario can be approached consistent with the Directive.

1.3 The legal framework

1.3.1 Article 7 Postal Services Directive 2008/6/EC

1. Member States shall not grant or maintain in force exclusive or special rights for the establishment and provision of postal services. Member States may finance the provision of universal services in accordance with one or more of the means provided for in paragraphs 2, 3 and 4, or in accordance with any other means compatible with the Treaty.

2. Member States may ensure the provision of universal services by procuring such services in accordance with applicable public procurement rules and regulations, including, as provided for in Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services (*), competitive dialogue or negotiated procedures with or without publication of a contract notice.

3. Where a Member State determines that the universal service obligations, as provided for in this Directive, entail a net cost, calculated taking into account Annex I, and represent an unfair financial burden on the universal service provider(s), it may introduce:

(a) a mechanism to compensate the undertaking(s) concerned from public funds; or

² According to the article 23 of the Main law 112/2004 it specifically states that any inefficiency should not be part of the net cost of the USO.

(b) a mechanism for the sharing of the net cost of the universal service obligations between providers of services and/or users.

4. Where the net cost is shared in accordance with paragraph 3(b), Member States may establish a compensation fund which may be funded by service providers and/or users' fees, and is administered for this purpose by a body independent of the beneficiary or beneficiaries. Member States may make the granting of authorizations to service providers under Article 9(2) subject to an obligation to make a financial contribution to that fund or to comply with universal service obligations. The universal service obligations of the universal service provider(s) set out in Article 3 may be financed in this manner.

5. Member States shall ensure that the principles of transparency, non-discrimination and proportionality are respected in establishing the compensation fund and when fixing the level of the financial contributions referred to in paragraphs 3 and 4. Decisions taken in accordance with paragraphs 3 and 4 shall be based on objective and verifiable criteria and be made public.

The member states shall bring into force the laws, regulations and administrative provisions necessary to comply with the Directive by 31 December 2010. However, a derogation of this has been granted to a limited number of countries, who are permitted to postpone the implementation until 31 December 2012, during which period they may continue to reserve services to universal service providers³.

This implies that a national legal framework that meets the requisites in Article 7 is now in force in a majority of the member states. The results of the questionnaire (sent out to the European countries within this study indicate that net cost calculation is required in a majority of the countries. Five countries indicate that the legislation now in force does not require a calculation of the net cost of the USO at any point. Two countries indicate that they are preparing a legal framework which includes net cost calculation of the USO.

1.3.2 Annex I - Guidance on calculating the net cost, if any, of universal service

The annex provides further guidance and covers essentially: which obligations the USO may include, the basic concept for calculation of the net cost, the elements to be included in the calculation, the assessment of the costs and benefits, the responsibility for verifying the net cost and the USPs obligation to cooperate with the NRA. The report will focus on these key issues with the aim to provide guidance in the perspective of the NRA in this complicated matter.

1.3.2.1 Part A: Definition of the universal service obligations

Universal service obligations refer to the obligations referred to in Article 3 placed upon a postal service provider by a Member State which concern the provision of a postal service throughout a specified geographical area, including, where required, uniform prices in that geographical area for the provision of that service or provision of certain free services for blind and partially-sighted persons. Those obligations may include, among others, the following:

- a number of days of delivery, superior to those set in this Directive,
- 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.

1.3.2.2 Part B: Calculation of net cost

National regulatory authorities are to consider all means to ensure appropriate incentives for postal service providers

³ According to article 3 in the Directive 2008/06/CE,

(designated or not) to provide universal service obligations cost efficiently. The net cost of universal service obligations is any cost related to and necessary for the operation of the universal service provision. 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 calculation shall take into account all other relevant elements, including any intangible and market benefits which accrue to a postal service provider designated to provide universal service, the entitlement to a reasonable profit and incentives for cost efficiency.

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 calculation is to be based upon the costs attributable to:

- (i) elements of the identified services which can only be provided at a loss or provided under cost conditions falling outside normal commercial standards. This category may include service elements such as the services defined in Part A;
- (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.

This category includes those users or groups of users that would not be served by a commercial operator that did not have an obligation to provide universal service.

The calculation of the net cost of specific aspects of universal service obligations is to be made separately and so as to avoid the double counting of any direct or indirect benefits and costs. 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. The responsibility for verifying the net cost lies with the national regulatory authority. The universal service provider(s) shall cooperate with the national regulatory authority to enable it to verify the net cost.

1.3.2.3 Part C: Recovery of any net costs of universal service obligations

The recovery or financing of any net costs of universal service obligations may require designated universal service providers to be compensated for the services that they provide under non-commercial conditions. As such compensation involves financial transfers, Member States have to ensure that they are undertaken in an objective, transparent, non-discriminatory and proportionate manner. This means that the transfers result as far as possible in the least distortion to competition and to user demand. A sharing mechanism based on a fund referred to in Article 7(4) should use a transparent and neutral mechanism for collecting contributions that avoids a double imposition of contributions falling on both outputs and inputs of undertakings. The independent body administering the fund is to be responsible for collecting contributions from undertakings, which are assessed as liable to contribute to the net cost of universal service obligations in the Member State and is to oversee the transfer of sums due to the undertakings entitled to receive payments from the fund.

2 Overview of the experiences

As an attempt to identify the difficulties which occur when setting up a net cost calculation whether a reference scenario is used or not, and to be able to recognize eventual disparities between member states practices and approaches, a Net Cost of USO and VAT as a Benefit/Burden Questionnaire was sent to all the National Regulatory Authorities (NRAs). 29 replies were received and provided by the NRAs of Austria, Belgium, Bulgaria, The Czech Republic, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, The Republic of Macedonia, Malta, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia,

Slovenia, Spain, Sweden, Switzerland and the United Kingdom. NRAs from Ireland and Iceland did not reply to the questionnaire.

The compiled results of the questionnaire highlights the different methodologies and principles used by the member states to evaluate the Net cost of providing the postal universal service as described in annex 1 of the 2008/06/CE Directive. The compilation of the answers also illustrates the state of play of the VAT system applied in the different member states, before assessing its effects (benefit/burden) on the Net cost calculation. The results of this part of the questionnaire is included in chapter 6.

2.1 The legal framework

Most of the respondents to the questionnaire (80%) reported that their legislation requires the calculation of the net cost of USO according to the 2008/06/CE Directive which has been transposed or according to their own national legislation. Some of the member states (EU27) have not yet liberalized their postal sector, as they have the benefit of the derogation described above to the Directive's implementation deadline is due to December 2012, thus are not, for the time being, responsible for making any net cost calculation, as the USP still benefits from a reserved area.

When considering the circumstances on which the net cost should be subject of an evaluation, the main incentive for setting up a calculation mechanism occurs when the USP expenditures are not enough covered and when compensation is needed, this according to the postal Directive. For some member states, the net cost calculation could be initiated either by the Ministry or on the request of the USP, yet the later must justify that providing the USO engender an unfair burden.

NRAs have limited intervention besides verifying the net cost calculation. Other possibilities to interact are available in some countries, such as changing the calculation methodology if it becomes inappropriate, verifying and auditing the data provided by the USP or fixing the compensation final amount, or decide if the net cost represents an economical burden.

2.2 Calculations made of the net cost of USO

Few respondents declared having already estimated the net cost of the USO. When the evaluation was made, some services were identified to cause net cost, such as the delivery frequency, delivered services to remote and rural areas, the obligation of expanding access points all over the territory and the free delivery of Braille items.

For many others (60% of the respondents), no calculation of the net cost has ever been made, and this could be explain due to the actual legal framework (for some countries, the USP still benefits from a reserved area), the lack of information concerning which methodology to use for the evaluation, the non existence of the net cost as the USO is financing itself, or because the USP does not ask for a compensation.

2.3 The use of a reference scenario

Annex 1 of the third Postal Directive gives details on the calculation methodology when evaluating a net cost of USO. Only half of the respondents that declared having calculated the net cost of USO used a methodology based on a reference scenario, i.e. by evaluating the cost and revenues of the provider operating without the universal service obligations.

Opinions are divided when asked who will be in charge of making the reference scenario. For those who have used a reference scenario, the methodology was conducted in most cases by a consultant, while for those who are willing to use a reference scenario for the calculation of the net cost of USO, the majority thinks that it is more appropriate for the USP to be in charge of it. However, a great majority seems to give an important role to the NRA by putting it in charge of doing the assessment of the reference scenario, based on the methodology already set up.

Difficulties may occur when assessing the reference scenario, such as determining its parameters (delivery frequency, postal network, geographical coverage, quality and prices), determining the services that the USP will be willing to offer even without USO, evaluating the reaction on the demand side after putting out the hypothesis, determining changes in revenues and costs, assessing the reference scenario credibility in practice.

For the majority of the respondents, assessing the reference scenario is by itself subject of debate between the assessor and the party in charge of making the reference scenario. Controversies may occur with the chosen cost allocation methodology, assessment of the intangible benefits (if it is evaluated during the phase of the reference scenario), or services part of the reference scenario.

Most of the countries agree with keeping the input data provided by the USP confidential, while making the reference scenario methodology and results public.

2.4 The net cost calculation and USP inefficiency

After setting up the reference scenario and calculating the net cost of USO, an important issue would be to find a way to safeguard that the net cost as evaluated is a result of the USO and has not arise due to inefficiency of the USP. The majority of the NRAs that have responded to the questionnaire reported the difficulty of this task, and some of them have not even considered this issue. A number of possibilities were proposed, such as evaluating the USP cost efficiency during the net cost calculation, stopping the compensation mechanism as an incentive for the USP to be efficient, or using comparative competitors as the stage of the reference scenario assessment.

Another difficult task for the respondents occurs when assessing the unfair burden of the net cost of USO, as the majority of NRAs have not yet had to consider this issue, and therefore have not chosen the appropriate criteria for this assessment. Some of the NRAs proposed some criteria such as the size of the incumbent, its turnover and its overall costs.

3 Net cost of USO

3.1 A theoretical model step by step

The regulatory challenge is according to Annex 1 of the Directive, presented above, to verify the net cost. It is clearly stated that the responsibility to verify this cost lies on the NRA while the universal service provider (s) shall cooperate to enable the NRA to carry out this task. This is a complex exercise which involves a number of different steps which in turn involves different measures. These steps and measures could be taken in different orders or sequences. To facilitate the understanding of the concept we have chosen to use a simplified theoretical model as a basis for the report. The model includes a number of steps that we consider necessary to be able to verify the net cost in line with the principles in Annex 1. The order in which they are presented is not aimed to be normative as it is not necessarily the only appropriate order. The same applies to the order of different measures and the interaction with the USP (s). To be able to verify the net cost we assume the following steps have to be taken.

- 1 The set up of a reference scenario – i.e. how the universal service provider (s) would act if it did not have the USO
- 2 The assessment of the reference scenario - i.e. to state whether the scenario as such is viable and credible
- 3 Calculation of the net cost based on the difference (if any) in the net costs of the Universal Service Provider(s) with or without the USO that could serve as a basis for verification
- 4 Verification of the net cost based on the calculation above
- 5 The assessment whether the net cost constitutes a financial burden

3.2 The role of the regulator

As already mentioned the regulatory challenge is ultimately to verify the net cost of the USO. In the annex it is explicitly indicated that this is the responsibility of the NRA. The USP (s) shall cooperate with the regulator to enable the verification. Although all NRAs in the European Union have the same legal basis for regulation through the Postal Services Directive, in practice this has been transposed differently into national legislation. This is reflected in the answers to the questionnaire where there are different views concerning the allocation of responsibilities between the NRA, the USP and other parties such as external consultants.

In three countries there are other options available to the NRA than to calculate the net cost. The answers to the questionnaire indicate that there are differences between the countries concerning which party that is responsible for the reference scenario and which party that is responsible for the assessment of the scenario.

In six countries the USP is responsible for making the scenario, in four countries this responsibility lies on the NRA and in four countries this is a task for a consultant. The ministry is however not responsible for this in any of the countries. The assessment of the scenario appears primarily to be a responsibility of the NRA as eleven countries indicated that this is the case while three countries

indicated that the responsibility lies on the USP and five countries have indicated that the assessment is carried out by an independent consultant.

Taking the regulators responsibility to verify the net cost as the starting point it is obvious / logical that the NRA must be able to direct the procedure and to set the requirements that has to be fulfilled in the different steps in the procedure. At the same time the universal service provider (s) is obliged to cooperate with the NRA why the interaction – in a wide sense - between these two parties appears to be of great importance not least to establish a rational procedure and avoid duplication of efforts. The principle of separation of regulatory and operational functions and the impartiality of the regulator has to be kept in mind.

3.3 Responsibilities – step by step

Neither the directive nor the Annex provide any guidance concerning the allocation of activities and responsibilities for steps and measures prior to the verification of the net cost. This issue has to be decided based on the conditions – legal, administrative and practical - prevailing in the respective countries. In the interest of rationality the theoretical model in section 3.1 can serve as a basis for discussion.

1. The set up of the reference scenario involves (as we will describe in chapter 3.4) the business strategy of the service provider (s) including how the service provider (s) would position itself on a market if there was no USO. Studies made imply that essential issues in this context are what service levels would be offered for which products.⁴ This is the case also if more limited approaches are applied such as the Net Avoided Cost (NAC) method.⁵ The conclusions in this respect are in the first place based on considerations made by the service provider why it appears relevant that the scenario as such initially is provided by the operator.

2. The second step – the assessment of the scenario - is closely related to the task to verify the net cost, which implies that this inevitably must be carried out by the NRA. The principles of independence and impartiality put certain requirements on the NRA. The NRA must scrutinize and question the scenario presented to be able to state whether it is credible and viable (see chapter 3.5.1), before bringing the process further. Additional information followed by adjustments in the scenario or eventually the set up of an entirely new alternative scenario based on the assessment made by the regulator is a probable outcome of this process.

3. The net cost calculation – the third step – which is based on the scenario accepted by the regulator requires identification of revenues and costs related to parts of the business that are affected. This information is not exclusively, but to a considerable extent, derived from the accounting system of the USP. Complementary information necessary for the net cost calculation could also be assumed to be in the possession of the universal service provider. When this is the case it is logical that the

⁴ Bergum, Kristin (2008). “Calculating the Net Cost of the USO: A Practical Example from Norway” In: Handbook of Worldwide Postal Reform, ed. by Michael A. Crew and Paul R. Kleindorfer and James I. Campbell, Edward Elgar.

⁵ Copenhagen Economics (2008) “What is the cost of Post Denmark’s universal service obligation?” The Danish chamber of commerce.

universal service provider presents the net cost calculation based on the scenario which in turn serves as the basis for the verification in the fourth step.

4. The responsibility to verify the net cost lies, as already been underlined, on the NRA. The approach, also in this step, is to question and scrutinize the net cost calculation presented by the universal service provider.

5. The assessment whether the net cost constitutes a financial burden has to be made by the NRA or the ministry.

3.4 The reference scenario

3.4.1 Principles and definition

In order to determine which services or elements of services and user groups that wouldn't be provided or served by the current USP without the USO, a reference scenario shall be constructed (as described in chapter 3.1). The reference scenario shall present how the former designated operator would position itself on the market if only considering its business strategy.

The Annex, Part B, in the Directive clearly states that the NRAs are to consider all means to ensure appropriate incentives for postal service providers (designated or not) to provide USO efficiently. It is also said that the net cost calculation of the USO shall take into account, among other things, the entitlement to a reasonable profit and incentives for cost efficiency. Our interpretation of these clarifications is that in the stipulated reference scenario the operator is supposed run its operations efficiently even if that is not the case today. The cost of achieving efficiency is not to be included in the net cost calculation of USO. If this cost or any inefficiency cost would be included there clearly could be reduced incentives for the operator to make their operations more efficient.

In other respects the framework for the operator operating within the reference scenario has to be identical to the framework facing the operator in the current situation. This particularly in respect of the underlying degree of competition, technology development and degree of liberalization. If not, the calculated change of operating profit represents the costs of liberalisation rather than the net cost of the obligation.

3.4.1.1 The profitability cost (PC) approach

The idea of constructing a reference scenario when calculating the cost of the USO is not new. Cremer et al.⁶ and also Panzar⁷ recommend a profitability cost approach in which it is possible to assess the burden that the USO imposes on an operator. Within the method the operator's *profits* at the market equilibria under two comparative scenarios are compared: one with USO and one without USO. In the first scenario the market is (at least in part) liberalized and entry has occurred. The incumbent operator continues to face the USO. In the comparative scenario the operator meets

⁶ Helmuth Cremer, André Grimaud and Jean-Jaques Laffont (2000) "The Cost of Universal Service in the Postal Sector"

⁷ Panzar, John (2000) "A Methodology for Measuring the Cost of Universal Service Obligations" *Information Economics and Policy* 12:3, 211-220

competition in, at least, some segments, but the incumbent operator does not face any USO. It may therefore be not only the designation of USO or not that differs in the two scenarios presented but also the level of competition. Though this method is interesting on a theoretical level it has many practical difficulties. For example Copenhagen Economics⁸ points out that it is questionable whether assumptions about future competition can be made sufficiently robust to allow a plausible calculation of the cost of USO.

In 2010 Panzar et al.⁹ used a similar profitability cost approach when calculating the net cost of the United States Postal Service (USPS)'s USO. This time they compared the difference between the profitability of USPS with and without the USO under the same (current) level of monopoly protection. As we can see this was a less complex and a more reliable calculation than Panzar presented in 2000. On balance, our view is that the approach is unlikely to be useful when calculating the net cost of the USO in a liberalized market (which is or will be the starting point in most European countries).

3.4.1.2 The entry pricing (EP) model

The EP model which for example is described by Rodriguez et al.¹⁰ also models with two scenarios. The difference between the profitability cost approach is that the entry pricing model compares one scenario in which the operator is the designated USP within a monopoly market and with another scenario where the same operator is not the designated USP and is operating within a liberalized market. As an effect the EP model rather focuses on the change in profitability due to liberalization and not only due to the withdrawal of the USO.

3.4.1.3 The net avoided cost (NAC) model

This model does not explicitly refer to a reference scenario as such, but takes a similar approach to its main objective, which is also to calculate the USP's losses which are associated with the USO. The approach is to identify each loss-making segment or part of product/service which the USP is obligated to offer as part of USO and for each of these calculate the actual loss. The aggregated sum of these identified losses is finally defined as the net cost of USO. Although this model has been widely used when estimating the net cost of USO it has some important shortcomings listed by Bergum (2008) and Copenhagen Economics (2007):

- The model focuses on the recipients and not the customers (senders) who pay the postage and therefore decide the quality of service demanded.
- It is too narrow-looking why the end result probably doesn't represent a plausible alternative business model that could result from the abolition of the USO.
- The result of the calculation depends on the definition (size) of segments. The more aggregated segments the more unprofitable portions of the business will be grouped with,

⁸ Copenhagen Economics (2008)

⁹ Cohen, Robert, Charles McBride and John C. Panzar (2010) "The Cost of the USO in the United States" In: Heightening Competition in the Postal and Delivery Sector, ed. By Michael A. Crew and Paul R. Kleindorfer, Edward Elgar.

¹⁰ Rodriguez F., Smith, S. and Storer, F. (1999) "Estimating the cost of the Universal Service Obligation in Posts" chapter 13 in Crew, M. and Kleindorfer, P. (eds.)(1999).

and covered by, profitable portions of the business. Hence the more disaggregated the data (segments) used in the calculation, the higher the resulting calculated USO cost.

- The basic model assumes that closing down one part of the business would not affect other parts of the integrated business.¹¹

The NAC model is widely used in the Telecom sector when calculating the net cost of USO. However, according to Gallet and Toledano¹², care should be taken when using the same cost evaluation method for the postal sector. Indeed, the situation differs with the competition level that occurs in the market. Moreover, the NAC model may not be the most appropriate way to measure the cost of the USO in the postal sector given the context of a move towards a more liberalised environment. It is a more appropriate measure in case the market is relatively stable.

3.4.1.4 The Alternative Commercial Strategy

A model which is both more realistic and closer to the basic principles and requirements given above was presented by Norway Post¹³ in 2002. Their starting point is *What would Norway Post's business look like without the USO?* and *What service levels would be offered for which product and why?* The result was "The Alternative Commercial Strategy" which is largely a continuation of Norway Post's current commercial strategies including, for example, high quality of services and closeness to the customers. Before this model was developed Norway Post used another model during 1996 – 2001, which was derived from the NAC method. Ultimately this first USO model was considered unsatisfactory as it demanded an overly complex set of detailed data. Whilst data quality can always be questioned, the complexity of the older model made it impossible to prove that there was no inefficient production included in the calculations. The level of detail was also a problem from another point of view: the more detailed data, the more areas of unprofitable business could be located, and hence this could indicate a higher NAC. This was of course unsatisfactory as the calculations were used as a basis for an actual payment. Hence the new model was developed. As Norway Post underlines it is naturally difficult to say exactly what its business would look like without the USO, but by lowering the ambitions the most plausible strategy for the operator could be more realistically defined.

One of the main conclusions from the experience of Norway's USO cost calculation was also, that "Alternative Commercial Strategy" was most closely related to definition from the new EU Third Postal Directive (Directive 2008/6/EC3) and that this model represents a practical method for calculating the net cost of USO which governments may use to define compensation to a USP. When studying this Alternative Commercial Strategy we can easily see the similarities with, what we in this report have referred to as, a reference scenario.

¹¹ Bergum, Kristin (2008)

¹² Catherine Gallet and Joëlle Toledano (1997), *The cost of the Universal Postal Service in a Competitive Environment: Lessons from Telecommunications*.

¹³ Bergum, Kristin (2008)

3.4.1.5 Short summary

In summary, the main principles to consider when setting up the reference scenario are that the operator in the scenario should be efficient, operate in the same degree of liberalization, the same level of competition and technology development. It is also important that the scenario reflects the most plausible business strategy the former USP would choose if it wasn't designated and that the assumptions, when defining this, should be made on an overall level. If the reference scenario presented is too detailed, complex and based on too many assumptions, the workload to calculate the net cost of USO will be heavy and the results will, in the end, tend to be more uncertain.

3.4.2 Factors to be included in the reference scenario

As discussed above, Annex 1 of the third Directive gives guidance on how to calculate the net cost of USO and clearly recommend using a reference scenario that should reflect the economic situation of the USP operating without the universal service obligations. After setting up a hypothetical operator based on the actual economic situation of the designated provider, the next steps for the construction of a credible reference scenario would be to define the services that the provider would provide on a commercial basis without an obligation, taking into account cost savings and the demand reaction.

This particular task consist of evaluating the USP behavior if it has no obligation regarding delivery frequencies, post offices, geographical coverage, services, price or quality and if he is acting on a commercial term as a profit maximizer, i.e. balancing the cost savings and/or benefits and the demand reaction from a modified commercial strategy. The reference scenario should take into account the commercial behavior of such a company. To determine the reference scenario, different strategies might be used: comparison of what the market players are already providing without obligations (but this is limited as there is almost no full competitor to USPs) or analysis of cost functions and demand reaction to determine the optimal reaction of the USP.

3.4.2.1 The delivery frequency

According to the Directive, the delivery frequency must not be less than five days a week. Without a universal service obligation, one could choose the delivery frequency that would maximize profit. If the USP already provides more delivery days than required (i.e. six days when only five is required by the legislation), this means that the constraint is not currently binding. Therefore, no change in behavior might be taken into account in the reference scenario. However, it is very unlikely that this would still apply if the USP had complete commercial freedom. If the USP seems to be constrained, the reference scenario should assess the cost savings and benefits from a reduction in the delivery frequency, to be compared with any loss in revenues induced by the change in demand caused by the change in the service.

With respect to the specific example removing of one delivery day, three studies¹⁴ have conducted simulations on what could be the effects of not delivering mail on Saturday (see chapter 3.6). The

¹⁴ Copenhagen Economics (2008); Frontiers Economics, "Net Costs of Elements of the Universal Service", May 2008; United States Postal Service, "Delivering the Future: a Balanced approach – Five-Day Delivery is Part of the Solution", March 2010.

findings were that costs would decrease by savings generated on most processes (mail collection, sorting or preparation) without a Saturday delivery or by the elimination of operations that support Saturday delivery in post offices. However, at the same time, revenue losses could be recorded on particular products such as publications which cannot be distributed a day after its publication. The additional volume spread on the other delivery days could also cause some outdoor process costs with for example the need of more deposits on routes. One should be careful on the estimation of the final losses and gains, which are directly affected by changes in the demand.

It should also be considered that for example Monday delivery could be eliminated in the reference scenario as a consequence of the business strategy, not only Saturday delivery.

3.4.2.2 Access points

Some of the Member States have specified in their national legislation the number of access points that the universal service provider should geographically fit out. The net cost calculation implies the evaluation of what will be the costs and revenues supported by the provider in the hypothetical scenario where it does not have the *accessibility to access points*' obligation. That reasoning implies the USP should identify the access points¹⁵ within the scope of USO which wouldn't be part of the hypothetical commercial network (i.e. the number of access points accessible according to the provider's own commercial strategy and economic results). It also implies determining the nature of those access points, as post shops or other alternative solutions might be cheaper alternative to current fully owned post offices. The determination of the commercial network can be based on a comparison with the network of competitors or other comparable businesses. It can be expressed in terms of a density of access points. The commercial network is the result of a balance between the cost of removing an access point and the technology chosen (fully owned point or post shop or alternative technology (automatic machine) and the loss of demand and revenue induced by the lower coverage (this loss might be direct: less sales at the access point, and indirect: less demand for other services because of a smaller network (i.e. operator choice for parcels from ease of pick-up, even if no sales actually takes place in the post office). The commercial network is the point where the incremental cost saving matches the loss in revenues.

3.4.2.3 Geographical coverage

Geographical coverage is one of the Directive recommendations that entail Member States to *ensure that users enjoy the right to a universal service involving the permanent provision of a postal service (...) at all points in their territory*. In the reference scenario, the hypothetical operator has the possibility of choosing the area(s) he would cover, according to the commercial environment. Estimating the losses or gains in revenues - and in intangible benefits, such as ubiquity that relies on the postal network's length - from a whole territory coverage policy to covering only some area(s), leads to identification of the optimum area coverage regarding costs and tariff alternatives (same tariff for everyone or not). One inconvenience of being the universal service provider is to be forced to cover areas with very high delivery costs, which would not be covered if it were not for the USO. The geographical scope in the reference scenario should take into account the demand for postal

¹⁵ Post offices owned by the operator and post shops where postal services are offered.

services: for several usages of postal services (tax statements, bills, registered mail, etc.), coverage of all the population might be required by the legislation. The operator might also be able to cover costs through a geographically differentiated tariff.

3.4.2.4 Services

The third Directive states that *Each Member State shall adopt the measures necessary to ensure that the universal service includes the following minimum facilities: the clearance, sorting, transport and distribution of postal items up to two kilograms; the clearance, sorting, transport and distribution of postal packages up to 10 kilograms; services for registered items and insured items.* It is also mentioned that some services could be provided for blind and partially sighted persons, such as Braille items. Given the assumption of rational commercial behavior, the hypothetical operator would only provide services that make a profit. A way to identify which services the USP would still offer without obligations, would be estimating the net cost of the provision of each service. The provision of services for blind and partially sighted persons is an example of a service which is likely to entail a net cost. It is therefore plausible that it would not be provided in the reference scenario. The Frontier Economics¹⁶ survey referred to above gives that kind of estimation by removing bulk mail from the scope of the universal service. It shows that in the particular case of Royal Mail, removing bulk mail would generate more revenue loss than cost savings. Therefore, bulk mail would be provided in the reference scenario. Another approach would be to consider the actual competitors of the USP and design the hypothetical provider's offer in accordance with what the competition, which is free of USO, provides from products and services.

3.4.2.5 Quality standards

In considering the impact of quality of service obligations (i.e. the transit time) and whether it constitutes a burden for the USP, the NRA has to assess if the provider would automatically lower its quality of service and delivery without the USO. The D+1 offer is sometimes perceived by universal service providers as a real constraint that generates large costs. It is therefore possible that without a quality obligation operators would be tempted to stop the D+1 delivery. It also depends on the chosen delivery frequency. The possible change in quality in the reference scenario should take into account the costs savings that can be expected from a lower standard (end of costly air transport, better optimization in connections and use of sorting machines, etc.), the reactions of demand (studies¹⁷ have shown that even if D+1 is probably not required in most usage of mail, it is still important for a non-negligible part of the population)) and the competitive impacts. The provision of D+ 1 service is one significant distinction between the USP and its competitors, which are often providing reduced quality at a lower price. It is not obvious that USPs would discard this competitive advantage.

¹⁶ Frontier Economics, (2008).

¹⁷ Study from London Economics commissioned by ARCEP (synthesis to be published)

3.4.3 The demand reaction

One of the largest difficulties occurring when establishing a reference scenario, and which was raised by some NRAs, is the evaluation of the impact on volumes and revenues when switching to the hypothetical situation and changing the provided services.

The Frontiers Economics survey¹⁸ highlights the main factors that could affect the demand reaction to a change in the universal service characteristics. Their evaluation uses the NAC methodology, and is based on two complementary steps. In a first round, the model analyses the effects on demand and market share of a change in volumes in response to the modified universal service. At this step, prices are fixed and new revenues and costs are calculated. On the second round, effects on prices are estimated, considering the changes in revenues and volumes recorded in the first step.

To assess the sensitivity of each universal service characteristic (quality of service targets, delivery frequencies, timing of collection and delivery and the class of mail), the model is based on some hypotheses such as considering there are limited substitutes for mail items or using Royal Mail's service characteristics.

Other assumptions are also taken to help compensate for the lack of information or experiences in demand changes effects. Thus, an econometric approach is used (which focuses on price elasticities and quality of service elasticities) for estimating effects when modifying quality or delivery and collection. For other universal service's specifications, estimation on demand effects is not possible using econometric evidence. In that case, the model adopts survey evidence, described as a market research that contains evidence on the stated preferences of customers.

Sensitivity analysis as well as customers' behavior studies and polls are also part of the methodology, confirming costs and revenues findings.

Question 1 (section 3.4): Among the different methods that have been presented, which one do you consider the most effective when setting up a net cost calculation? Please provide reasons for your answer.

Question 2 (section 3.4): According to you, what would be the most plausible reaction of the USP if he did not have US obligations? Which services or element of services would it still be willing to offer?

Question 3 (section 3.4.3): According to you, what would be the impact of the demand when setting up the reference scenario? Please explain your reasoning.

Question 4 (section 3.4.3): What would be the method to evaluate the demand reaction, when changing each segment of the offered services, from a theoretical view point and/or from practical evidence/experience?

¹⁸ Frontiers Economics, (2008).

Question 5 (section 3.4.3): Has the NRA and/or the USP made any estimation on demand reactions? If yes, can you describe the methodology that has been used? What are the main conclusions that can be taken?

3.5 Approaches and methods/principles to assess the reference scenario

3.5.1 Basic requirements on the scenario; credible and 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.¹⁹ 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 would be unlikely to be part of a viable commercial strategy.

When analyzing the reference scenario, the NRA should also take into account the fact that the competition environment may change when changing the incumbent parameters. Therefore current competitors' reactions should be part of the analysis when assessing the reference scenario/the operator's business strategy.

Copenhagen Economics recommends a commercial approach, when defining the net cost of USO, as the starting point when setting up the scenario should be the customers' perspective. This approach emphasizes that the former USP's business strategy naturally would be to meet the demand from its customers who are paying and not the recipients (as in telecom). Following this argumentation one can say that it is not credible that the former USP would provide certain free services for blind and partially-sighted persons if it were not to be the designated USP. On the other hand the operator would probably continue to maintain full geographical coverage as this service level still would be demanded by the senders.

Bergum (Norway Post) points out that it could be argued that a basic problem with their commercial strategy model is that the USP could define its business strategy almost arbitrarily as to increase its payment from the Government (to cover the Net cost of USO). In practice this hasn't been a significant problem in Norway. Norway Post's alternative commercial strategy (reference scenario) cannot drift far from the other messages that it is communicating to its customers, its employees, and the various governmental authorities that act as owners and regulators of the firm. This overall strategic message is disciplined by many different considerations in which USO compensation plays only a small part. This complexity in itself should safeguard that a reference scenario taking all these variables into consideration would be credible and viable.

¹⁹ 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.

3.5.2 Realism of the reference scenario

Before entering into a full review of any reference scenario, the proposed alternative approach to the postal network needs to be considered for realism. In principle, the approach needs to be tested for practicability. This is particularly important for significant changes to the network based on a change in the frequency of delivery, or based on changes in geographic reach.

The realism of the reference scenario should be first tested as to whether it has considered all the effects of a change in the products offered to customers:

- If the assumption is for a reduced service, who will stop using mail and why?
- Has the effect on all products been considered? For example, have all products which are impacted been included in the reference scenario?
- Has the possibility of switching between products been considered?

In particular, the realism test will need to take account of whether there is an assumption that customers will respond to a reduction in service quality (whether through [limited geographical reach, lower frequency or lower quality of service) by stopping the use of mail or by switching away from premium to cheaper mail products, and whether this is realistic.

3.5.3 Network optimisation

The most technically complex element of a reference scenario is likely to be if it includes an assumption of network re-optimisation. For example, the most significant benefit from removing a next day delivery obligation may be to reduce the number of delivery walks by going to each house every other day. However, this could also mean significantly less mail centres being required, as there is less time pressure to get mail to the inward sorting centre quickly. The reference scenario can realistically include an assumption that the network would look very different. For example, the network would need fewer:

- Mail Centres
- Lorries, as they can be run only when full due to the reduced service quality requirements and have less centres to go between
- Sorting machines, as there is a lower peak

The NRA will not be in a position to assess the realism of the assumptions. Therefore, the only approach will be likely to be to engage operational experts.

However, even then there will be significant uncertainty. The operator may make assumptions over very significant changes in the scale of operations, which may be justified by international comparisons. For example Country A has X Mail Centres, whereas Country B has only Y Mail Centres. Such comparisons may be unhelpful, as it may be that under the reference scenario, there is no operator with a comparable network.

Question 6 (section 3.5): When assessing the reference scenario, what would be the best way of verifying the credibility of the hypothetical USP construction and reaction?

Question 7 (section 3.5): As part of this consultation, we are seeking views on the best approach for an NRA to take in this scenario. Options range between:

- **Focus on operator scenario, and whether it is credible;**
- **Prepare NRA's own scenario, and then explain differences;**
- **We are also seeking views on whether the scenario should look only at direct avoided costs such as fewer deliveries or should it also look at network reoptimisation?**

3.6 The net cost calculation

When a credible and viable reference scenario is established, approved by the USP and assessed by the NRA, the net cost calculation could be initiated. As it is the NRA's task to verify the net cost it is natural that the net cost calculation should be presented by the USP (see 3.3).²⁰ The more similar the USP's current situation is to the reference scenario, the smaller the net cost of USO is likely to be for a profitable USP.

As we could see in chapter 1.3.2.2 the net cost calculation is described in the Directive's Annex 1:

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 calculation shall take into account *all other relevant elements*, including any intangible and market benefits which accrue to a postal service provider designated to provide universal service, the entitlement to a reasonable profit and incentives for cost efficiency.

The calculation of the net cost of specific aspects of universal service obligations is to be made separately and so as to avoid the double counting of any direct or indirect benefits and costs. 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.

The net cost calculation should assess the benefits, including intangible benefits, to the universal service operator. The calculation is to be based upon the costs attributable to:

- (i) elements of the identified services which can only be provided at a loss or provided under cost conditions falling outside normal commercial standards. This category may include service elements such as the services defined in Part A;
- (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.

This category includes those users or groups of users that would not be served by a commercial operator that did not have an obligation to provide universal service.

²⁰ This doesn't exclude the possibility for the NRA to define a methodology for calculating the USO, which can later serve as a basis when the NRA (or a consultant on behalf of the NRA) is verifying the calculation of the USO.

Both Bergum (Norway Post) and Copenhagen Economics recommend a step by step analysis when calculating the Net cost of USO. Like the PC approach (see 3.4.1.1) their commercial method/strategy focus on a step-by-step analysis of each element of the USO and an evaluation of what would, plausibly, be the free strategic choice of the incumbent if it did not face the obligation in question. Although the Norwegian approach defines USO costs in the same way as the PC approach (as the difference in profit with and without the USO) the actual calculations differ. Both Crémer et al. and Panzar (2000) include calculations of consequences of future competition. As Bergum clarifies, though this method is theoretically satisfactory, it is hardly possible to conduct such calculations with the robustness, transparency and simplicity demanded by practical relations with the government. The step-by-step analysis proposed by Norway Post, Copenhagen Economics and Frontier Economics therefore represents a pragmatic alternative where the theoretical ideal is unachievable.

3.6.1 The net cost calculation according to The Alternative Commercial Strategy – The Norwegian example

As we have described in chapter 3.4.1.4 Norway Post's starting point is to ask *What would Norway Post's business look like without the USO?* and *What service levels would be offered for which product and why?* In spite of the unfavorable demographic and geographic conditions in Norway, Norway Post states that it is not credible that they, as it currently envisages its business, would discontinue providing basic postal services to the entire population of Norway. Therefore Norway Post defines its alternative commercial strategy as follows:

- In most rural areas, delivery frequency would be reduced from the current level of six deliveries per week. Fifteen percent of the households would likely receive mail five days per week, and another 5 percent would receive mail only twice a week.
- Services to blind would not be offered for free, and some extra services related to insured and registered mail would not be offered at all post offices.
- Uniform national rates would not apply to mail and parcels sent to and from Svalbard, an archipelago far from mainland Norway.
- Banking services would not be offered.

In all other respects, Norway Post has concluded that it would continue the current pattern of service without obligation. As Norway Post stresses, this alternative commercial strategy presupposes normal commercial flexibility which means that the company must be able to adjust the level of its services and prices and to subcontract non-core activities like any other company. They also state that restrictions on downsizing and outsourcing should not be defined as part of the postal USO but should rather be classified as labor politics. This is an important concept which is consistent with the Directives requirement on incentives for cost efficiency in the cost calculation, as discussed in chapter 3.4.1.

When comparing the current strategy with the defined alternative commercial strategy the calculated cost of the Norway Post's USO is about 2 percent of the company's total sales. The main part of this cost is caused by Norway Post's current delivery frequency with six deliveries per week.

Norway Post's calculations are examined by an external auditor, and all calculations are transparently documented to the ministry.

3.6.2 Net cost calculation according to the commercial approach – The Danish example

When calculating Post Danmark's net cost of USO Copenhagen Economics started with an in-depth review of the individual requirements of the USO in Denmark.²¹ By defining the specific USO requirements according to the Danish law and the Directive, the Danish consultants could identify six dimensions in which the requirements could be divided: geography, service, products, prices, letter boxes, post offices and other. For each requirement they estimated the corresponding increases in the profits for Post Danmark if the requirement was abolished. The sum of these increases represented Post Danmark's USO cost.

The requirements reviewed where:

- Delivery to the entire country
- Six days delivery instead of five days delivery
- Reliability of delivery (i.e. Quality of Service targets)
- Liability to pay compensation
- Free delivery of material for the blind²²
- Uniform prices of single letters in the entire country
- Nationwide letter box network and network of service outlets
- The USO accounting requirements

By studying each requirement individually, comparing what Post Danmark offers today with what is required by the legislation and with the operator's own business strategy, many of the requirements could be excluded without even making an estimation. For example the requirements regarding the reliability of delivery and liability to pay compensation were concluded not to constitute a burden for Post Danmark due to the fact that both Post Danmark and its competitors voluntarily offer higher standards than required to the USO. With similar arguments the requirements for Post Danmark's network of letter boxes (for collection) and its network for service outlets were concluded not to constitute a burden. The reason for this is that these requirements are so flexible that they really don't mean a constraint on Post Danmark.

In the end it was only the six days delivery (DKK 130 million) and free delivery of material for the blind (DKK 18 million) that were calculated to impose a net cost on Post Danmark. The rest of the requirements, Copenhagen Economics concluded, Post Danmark would fulfill even without the USO either because of its customers demands and Post Danmark's business strategy or because of other requirements (from the Danish Competition Act for example).

²¹ Copenhagen Economics (2008)

²² All other products under the USO, such as letters up to 2kg, parcels up to 20kg, magazine mail and newspapers, were concluded to be commercially attractive and would thus be delivered with or without the USO.

Finally it was concluded that Post Danmark has a number of special competitive advantages associated with its USO such as brand, the right to issue national stamps and a loyal customer base. The value of these advantages were estimated to exceed the USO cost. As a result it was concluded that the USO did not imply a burden for Post Danmark.

3.6.3 Net cost calculation according to the commercial approach – The British example

Frontier Economics used a similar method when they estimated the net cost of elements of the universal service in UK, including the study discussed above and a recent update in 2011.²³ This study aimed to assess whether Royal Mail could operate more profitably (or reduce losses) if it was not obliged to comply with some parts of the USO, specifically the requirements to:

- deliver letter six days per week rather than five
- maintain 93% first class quality of service
- provide first and second class mail, rather than a single two-day mail product
- maintain current collection and delivery times
- offer bulk mail as part of the USO

The study looked at each component separately and for each service elements it sought to assess how costs and revenues would change if the service specification changed. The approach also took into account the full impact on Royal Mail as a business, not just its regulated products. So when estimating revenue and cost savings if Royal Mail stopped offering one service, the consultants included all products that could be affected, not just those which are formally defined as part of the USO.

For example, the theoretical economic impact of shifting to deliver 3/4 days a week or to a more limited geographical area could be argued to be very small based on economic analysis, where a substantial majority of customers will continue to receive comparable levels of service. In practice, there may be a greater behavioral impact. Customers will be forced to consider alternative options for addressing urgent customer needs or to achieve national coverage, and once established some customers may then move all communications to these alternative mechanisms.

The conclusion in Frontier Economics study was that some service features do impose a net cost on Royal Mail. The cost savings if Saturday deliveries were no longer offered would be around 4% of total costs and if Royal Mail was allowed to reduce the quality of service they could save 1 % of total costs. As the authors emphasizes, these cost savings are relatively small in the context of the transformation programme that Royal Mail has already embarked on.

The model aimed to compare Royal Mail with and without at particular service element, while keeping everything else constant (in particular: efficiency, mail demand, and the conditions under which competitors would enter). It is worth noticing that Frontier Economics choose to compare Royal Mails operations with and without a specific requirement, but with the same efficiency. As we have discussed, in chapter 3.4.1, it is said in the Annex that the net cost calculation of the USO shall

²³ Frontier Economics (2011) “Net Costs of Elements of the Universal Service an update”. A report prepared for Postcomm.

take into account incentives for cost efficiency. A risk Frontier Economics takes when using the current level of efficiency in both scenarios (with and without USO) is that the costs of the USO hides inefficiencies not caused by the USO requirement but rather by Royal Mail's organizational structure and that this impacts the size of the net cost calculation. An assumption that Royal Mail's operations should become more efficient before reducing the scope of the USO would reduce this risk and would be fully in accordance with the Directive.

3.6.4 Cost of six day delivery – the US' example

The USPS has also used a reference scenario when estimating the net cost of six days delivery instead of five days delivery.²⁴ The evaluation of the potential gain of a five-day delivery system relies on the comparison between costs endured by the current six-day delivery system and a five-day delivery scenario, and revenues collected in both situations. The hypothesis made on the reference scenario are reviewed by the Postal Regulatory Commission (PRC). Four main points are pointed out as changing in the five day scenario (everything else identical):

- no Saturday mail delivery to street addresses
- no Express mail or priority mail pickup from street addresses on Saturday
- no picking up of mail from collection boxes or Post Offices on Saturday
- outgoing mail are processed only on Monday through Friday

The main conclusion is that the six-day delivery system generates a net cost for USPS (\$3,1 billion a year) compared to the five-day delivery system. As we can see this is a more narrow calculation than the Norwegian, Danish and British, where USPS only is calculating the net cost for one of its USO requirements, but it still visualizes a systematic process when identifying a specific net cost. In interpreting this analysis, it is compared to reflect that this calculation would be likely to look different if it were to consider inefficiencies and if the effect on joint costs and revenues from eliminating other USO requirements were to be taken into consideration as well.

3.6.5 Short summary

In all above mentioned studies, of the net cost calculation of USO, the main conclusion is that the most important element in the calculation was the cost savings arising from projected reductions in delivery frequency. This parameter was also exclusively studied in US cost study. Other requirements estimated to impose a net cost was free delivery of material for the blinds and the quality of service (transit time).

3.6.6 Cost accounting method

Before estimating the net cost of USO a quality-assured cost accounting system has to be established. The cost accounting system shall ensure a correct cost- and revenue allocation to each service and prevent non-permitted cross subsidization. Further guidance how the cost allocation

²⁴ Delivering the Future: a Balanced approach – Five-Day Delivery is Part of the Solution by United States Postal Service, March 2010, Advisory Opinion on Elimination of Saturday Delivery by Postal Regulatory Commission, March 2011

should be done will soon be provided in a report that will be presented and serve as a basis for elaborating an ERGP common position.

It is not until a quality assured system for cost allocation is in place that a net cost calculation of USO can be done. A common subject when discussing the net cost calculation of USO is the choice of an appropriate cost accounting method (not to be confused with the Net Cost Model) to be used within the calculation. Looking for guidance in the Directive we can see, as described earlier, that *the net cost of universal service obligations is to be calculated, as the difference between the net cost for a designated USP of operating with the USO and the same postal service provider operating without the USO*. To enable such comparison it is quite clear that the intention in the Directive is that the same cost accounting method should be used in both situations/scenarios. Paragraph 3 of Article 14 insists on the necessity for the regulatory accounting system to apply to products and services beyond USO that share some common activities (hence costs) with USO products. The scope of the regulatory accounting system and the corresponding rules approved by the NRA must therefore go beyond USO activities to all products when the latter share processes with USO for proper accounting separation.²⁵ Therefore NRAs should enforce the USP to use the same cost accounting method the USP is using in its general cost accounting system in the net cost calculation.

3.6.7 Double counting and joint costs

As we can see above the new Postal Directive (2008/6/EC) states that the net costs should be computed individually across the various USO elements so as to avoid double counting. Jaag et al.²⁶ discuss this wording within the Directive and stress that *as important it is to avoid double counting in the net cost calculation as essential it is not to foresee the joint costs which arises when providing the entire USO*. To safeguard that this will not happen they present “The global approach” which provides consistent estimates of the net costs of the USO, including clear recognition of the joint impact of the multiple obligations in any given USO. The interdependencies across obligations should not be hidden by addressing the different obligations separately, but rather these interdependencies should be made as transparent as possible so that policy makers and the USP can understand the joint impacts and net costs of the multiple obligations imposed under given USO.

3.6.8 Measurement of the underlying revenues affected

This should be simpler than on costs, as most operators should be able to measure the revenues of affected products, as long as the products affected can be specifically identified. If it is all products (e.g. change in geography of delivery) then the reference scenario would have to assess whether all customers would be affected, or only some (e.g. it is likely that social mailers would just not send to that area, but national companies e.g. utility companies might seek an alternative form of communication with wider reach (advertising and electronic communication)).

²⁵ Cf. als ERGP (11) 16 –ERGP Report on common costs allocation under public consultation, p. 8.

²⁶ Christian Jaag, Martin Koller and URS Trinkner (2009) “Calculating the cost of the Universal Service Obligation: the need for a global approach” In: Progress in the competitive agenda in the postal and delivery sector, ed. by Michael A. Crew and Paul R. Kleindorfer, Edward Elgar.

3.6.9 Other relevant elements, including any intangible and market benefits affected by the reference scenario

Directive 2008/6/EC addresses the concept of benefits from being a universal service provider in connection with compensation mechanisms. Under the directive, compensation mechanisms may be introduced by Member States only if a net cost of universal service obligation actually exists and only if this net cost represents *an unfair financial burden on the universal service provider(s)* (Article 7). The Directive requires that *[t]he calculation shall take into account all other relevant elements, including any intangible and market benefits which accrue to a postal service provider designated to provide universal service [...]*(Annex I, Part 8).

The following list is not exhaustive and will have to be adapted on a case-by-case basis to the national specific situation of the operator. Moreover it is possible that the intangible and market benefits have already been implicitly included in the customer's behavioral assumptions (fairness) and in the counterfactual scenarios including consequently the strategical choices of the operators as regards the profitability objectives. In this case it will have to be proven how we consider that these advantages have already been integrated into the reference scenarios.

In the literature, the following benefits were addressed:

3.6.9.1 Demand complementarities

Demand complementarities imply that those sales of some loss-making USO products may result in increased sales of other (profitable) USO products. It is also possible that there is an impact on sales of profitable non-USO products and even non-mail products.²⁷

Universal service providers supply products via the postal outlet network that are not related to the USO. If customers are buying these products (in conjunction with the purchase of universal service products), then, a demand complementarity occurs.

3.6.9.2 Economies of scale/scope

Economies of scale between USO products arises when the unit cost of producing a product decreases with the total quantity of another product; i.e. the total costs of offering mail service A together with mail service B is less than the sum of the costs that two different firms would have if offering them separately. Finally there are usually economies of scope between USO and non-USO products when the production of the USO products that reduce the unit cost of producing the non-USO products. For example, this could be the case if there are common distribution costs.²⁸ for example if USO-products and non- USO products are delivered by the same postman.

²⁷ London Economics (2002), p. viii, Barkatullah/Ramada (2002), p. 6f. Barkatullah/Ramada (2002) is an extract of the study of London Economics (2002)

²⁸London Economics (2002), p. 108f; Barkatullah/Ramada (2002), p. 15. Indirectly, Postcomm (2001), p. 39ft, indicates economies of scale when estimating the total costs that can be avoided (net avoidable costs, NAG) by dropping all "loss-making" routes. Panzar (2008), p. 23f., demonstrates economies of scope between USO and non-USO products by a short example. Sidak (n.d), p. 31f., mentions that the postal service "may derive, from its statutory monopoly over the market-dominant product, an incremental benefit in the form of both economies of scope and economies of scale in the competitive market." Hence, Sidak (n.d) points out that the statutory monopoly (which is often connected to the USO) is responsible for the mentioned benefits (economies of scale and scope). Given economies of scale, the incumbent can make use of its market-dominant position with respect to the USO product to predate competitors in providing competitive products.

3.6.9.3 Enhanced advertising effect

London Economics (2002) mentions a direct advertising effect of Royal Mail's universal service obligation.²⁹ In particular, the postal outlets and their design (logo, colors) represent the brand of Royal Mail, comparable to advertising space. In addition, when delivering postal items, postmen (and their corporate outfit with the colors and the logo) represent the brand of Royal Mail to the public, acting as 'moving' advertising space. The same applies for the vehicles. Other postal operators would have to spend a considerable amount of money in order to achieve the same advertising effect as Royal Mail.

3.6.9.4 Interest profits due to prepaid postage

Postal incumbents achieve a financial advantage by selling stamps in advance of their date of use. This prepaid system analogously applies to franking machines which are charged before franking. Private postal operators usually do not charge their customers in advance, and they frequently grant additional time for payment. With this prepaid stamp system the incumbent has an advantage compared to its competitors as it earns (or saves) interest.³⁰

3.6.9.5 Low transaction costs due to uniform tariffs

Lower transaction costs are often mentioned as a benefit of providing a universal postal service at a uniform tariff. Certain customers may not want to invest time in determining the correct rate for low value items, the uniform tariff saving transaction costs of both customers and the postal service provider which is obliged to offer the service at a geographically uniform tariff. Therefore, although non-uniform prices may be more cost reflective, it might not be the most cost-effective option for a universal service provider. For example, extra costs could be incurred by customer confusion and the generation of more enquiries at call centers.³¹

Based on these considerations, the uniform tariff may give the universal service provider a competitive advantage versus other operators who choose less straightforward pricing, as customers do not want to invest a large amount of time in order to determine the correct postage for alternative services.³²

3.6.9.6 Better bargaining position with the regulator, politicians, and the workforce

There may be benefits associated with being the universal service provider with respect to the company's influence on the regulatory authorities and politicians, respectively. In the postal market, regulatory policy is important to determine the constraints faced by operators. It is argued that the universal service provider, in general, has a more direct channel to politicians and the postal regulator than its competitors, though there is a little evidence as to be the benefit of this.³³

3.6.9.7 Ubiquity

There are two dimensions with respect to the benefit of ubiquity. The first one is based on customer awareness. When customers move to a new address, they can still access the services provided by the universal service provider. At the new location the customer may not know about potential competitors. As a result of this lack of knowledge, a proportion of customers will choose the

²⁹ London Economics (2002), p. 96f

³⁰ Copenhagen Economics (2008), p. 80f

³¹ Postcomm (2001), p. 60, London Economics (2002), p. 163

³² Barkatullah/Ramada (2002), p. 31

³³ Postcomm (2001), p.61, London Economics (2002), p. 19 and 164, Barkatullah/Ramada (2002), p. 31

incumbent over alternative suppliers where they are available.³⁴ This dimension is targeted on the ubiquitous availability of the services of the universal service provider.

The second dimension is aimed at the ubiquitous delivery of a universal service provider. Customers are more likely to use the universal service provider (because, by virtue of the universal service obligation, they can be sure that the universal service provider (incumbent) will deliver to all addresses.

3.6.9.8 Enhancement of corporate reputation/brand value

Most incumbents/USPs provide high-quality postal services, throughout the entire country. This results in a high corporate reputation and an accordingly high brand value. Customers perceiving this high-quality (and recognizing that the USP offers some unprofitable services) may buy other (non-USO) services from the USP instead of choosing another operator.³⁵ Reducing the quality below USO levels may lead to a reduction of the company's reputation and the brand value, respectively.

3.6.9.9 Privileged access to the philately market

Most universal service providers have the exclusive right (and obligation) to issue stamps with the printed name of the respective state. Those stamps are more requested by stamp collectors than stamps of postal operators that are not allowed to print the name of the state on their stamps. Therefore, the universal service providers are able to sell stamps at significant margins to the philately market.³⁶

3.6.9.10 Recipient database

In some countries, universal service providers are exclusively allowed and obliged to access public registers. For example, Copenhagen Economics argues that Post Denmark has a unique access to public registers such as the Danish Civil Registration System. In addition, it is usually only Post Denmark that is notified of temporary changes of address. Post Denmark is thus able to collect and check all address information in a recipient database. This is a competitive advantage compared to postal operators which have no access to public registers and are not able to build up a nationwide recipient database³⁷.

3.6.10 Methods to quantify intangible benefits

In the literature review, methods to quantify intangible benefits are presented in three studies. The study with the most extensive explanation of how to quantify methods is London Economics (2002). Copenhagen Economics (2008) and BDO/WIK-Consult (2007) only suggest pragmatic approaches to estimate some selected benefits.

The most recent study (WIK) proposes to assess the quantitative impact of intangible benefits on the basis of the following simple model for the profit of the universal service provider:

$$\pi = pv - cv - c_o + \pi_{PM}$$

where

³⁴ Postcomm (2001), p. 60, London Economics (2002), p. 69 and p. 163

³⁵ Copenhagen Economics (2008), p. 19, London Economics (2002), p. 19, Barkatullah/Ramada (2002), p. 31

³⁶ Copenhagen Economics (2008), p. 19, London Economics (2002), p. 19, Barkatullah/Ramada (2002), p. 31

³⁷ Copenhagen Economics (2008), p. 83

- π \equiv operator's profit
 p \equiv price (index) for services sold, net of VAT
 c \equiv cost of production per unit of services
 v \equiv total volume of services demanded
 c_o \equiv (volume independent) overhead cost
 π_{PM} \equiv profit in the philately market

The values of all variables in the above profit equation, except p (as discussed below), show the influence of the fact that the operator is the universal service provider, where this influence operates through the various channels corresponding to the benefits identified and discussed in the preceding chapter. The influence of the USO on these variables is expressed in the following equations:

$$v = v(q(USO), CR(USO), BP(USO), VE(USO), p_{1+t}(VE(USO)), \dots) \quad (2)$$

$$c = c(v, q(USO), VE(USO), CE(USO), TE(USO), \dots) \quad (3)$$

$$c_o = c_o(A(USO), \dots) \quad (4)$$

$$\pi_{PM} = \pi_{PM}(USO, \dots) \quad (5)$$

w

here

$q \equiv$ quality

$USO \equiv$ universal service obligation

$CR \equiv$ corporate reputation

$BP \equiv$ bargaining position

$VE \equiv$ VAT exemption

$p_{1+t} \equiv$ gross price, including VAT at rate t

$CE \equiv$ exemption from customs regulation

$TE \equiv$ exemption from transport license requirement

$A \equiv$ advertising effect of post offices, mailboxes, vehicles and mailmen all showing the universal service provider's logo.

The above equations represent functional relationships where the terms in the parentheses on the right side are the variables which influence the variables on the left side. For example in equation (2), the volume demanded (v) depends on the level of quality (q), the level of corporate reputation (CR), the bargaining position with government, politicians and unions (BP), the price paid by users, i.e. including the VAT where applicable (p_{1+t}), and other parameters, represented by the three dots, which are of no interest here. Each of the four explanatory variables of interest q , CR , BP and p_{1+t} are shown to depend on the universal service obligation (USO).

In the study "Benefits of Universal Services Provision to Consignia Final report to Postwatch by London Economics" the measurement of a brand's value is established as follows: ..."

Any attempt at measuring the BRA effects ("consideration of brand name, reputation and customer awareness") of the USO must do two tasks. It must first estimate the BRA value, and then decide

what proportion of that value is attributable to the USO. Measuring brand value is not an easy task and there have been several approaches to this issue.

Brand Communication Investments

This is a simple and direct measurement and adds all the brand's communication investments, adjusted for inflation.

Awareness Valuation Method

Product managers, in some companies, when projecting the volume for a new product, may use equations that convert a given advertising budget into its resulting awareness, awareness into trial, and trial into its resulting consumption volume. It also reflects the current cost of re-creating the brand today independently of the way it was actually created

Relief-from-Royalty Method

This method is based on the concept that if the company did not have the use of its brand name it would need to license that right in exchange for a royalty fee. These royalty fees are usually based on a percentage of sales (not profits). The valuation consists of first estimating the fee as a percentage of sales and then projecting that fee over the useful life of the brand. One then computes the "Net Present Value" of the sum of those fees over the expected life of the brand.

Excess-Earnings Method

This is an indirect valuation method that tries to assess the increase in profit (or cash flow) attributable to the brand and project these cash flows over the useful life of the brand (usually limited to 10 years) by a "Discounted Cash Flow" analysis.

They start by writing operator price compared to competitors' prices and some margin (mark-up), hence, if P_c is Consignia's price and p a measure of the price under competition we can write:

$$P_c = p + r,$$

where r is the operator mark-up due to brand value (B) or other characteristics (u), i.e.

$$r = B + u.$$

Finally the benefits associated to brand value could be computed as $\pi^* = Q * B * (BUSO)$, where $BUSO$ is the percentage of the brand value attributable to the USO.

We could get an approximate measure of p as an average of the prices of other service providers when analysing courier services abroad (DHL, UPS, etc) and other financial services (insurance, etc)."

Question 8 (section 3.6): Has the USP initiated a net cost calculation for postal universal services based on a reference scenario? If yes, what are the main conclusions that can be taken?

Question 9 (section 3.6): When choosing the hypothetical operator's parameters, with which methodologies would you, evaluate changes in costs? Please provide reasons for your answer. How do you ensure that these methodologies are robust and do not over/underestimate the changes in costs?

Question 10 (section 3.6.9):

a) Do you consider that the USP benefits from other (material) advantages, if yes which ones?

b) Do you consider philately as susceptible to provide any material advantages, indirectly derived from USO activities? Yes or no? Please provide reasons for your answer.

Question 11 (section 3.6.10): **We are seeking views on the methodology to estimate intangible benefits and are interested in the experiences made.**

3.7 Verification of the net cost

3.7.1 Measurement of the underlying costs

In coming to a calculation of the reference scenario, the USP can realistically expect to include two separate sets of costs, and the assessment needs to consider these separately.

Firstly, there will be direct avoidable costs. These should be calculated from the general ledger, and should be consistent with the costs using in the costing of USO products. For example, if the USP were to withdraw or reduce the frequency of delivery to a certain area, this would reduce the need for delivery walks and therefore the costs of delivery in that area, which can be directly measured.

However, particularly for very material changes in the area there will also be changes to the level of related overheads. Reduced direct activity will also result in a consequent reduction in support costs or in other parts of the pipeline, particularly if the USP is also assuming lower volumes of mail handled.

Such costs are unlikely to be wholly variable with the reduced direct cost. The assessment should be based on a direct operational assessment of the reasons for the costs being linked to the lower activity. Specifically, if the USP has assumed 100% variability of costs, this could represent an overstatement of the net cost and it should be considered if it needs to be adjusted, unless the impact is so small to make such adjustment immaterial to the overall decision.³⁸

3.7.2 Cost efficiency

As discussed above, the clearest trend among NRAs who had considered a net cost calculation was the need to ensure efficiency. As an example, under the scenario discussed above where a USP seeks compensation for the cost of a proportion of its Mail Centre networks, this needs to be in the context of the counterfactual – which could be that of the reduction in the size of the network], a large proportion relates to improvements in efficiency, rather than reoptimisation of the network.

³⁸The overhead costs could also be insignificant and in that case it would not make sense to consider them in the calculation.

In principle there are two possible approaches to the efficiency adjustment:

- To require an efficiency adjustment to current costs before any cost of the reference scenario is taken into consideration; or
- To assess the net cost against an equally efficient (or, specifically, an equally inefficient) network

The latter is likely to be significantly easier and more practical. This implies that any change to costs would be based on the current level of network cost. For example, if the USP removed delivery from an area, and therefore the cost of local delivery services, the actual cost saved would be included in any net cost calculation.

This therefore does result in a higher net cost than the former approach, which would require an efficiency adjustment to the USP's current costs. In practice this is likely to be impractical for the NRA in most circumstances.

However where the change is indirect – for example the mail centre example discussed above – then the former method may in practice be equally if not more practical. If any operational expert is being expected to consider the reoptimised network, this may be more practical to do twice – with and without USO on a like-for-like basis, than to re-optimize an inefficient network to a comparable level of inefficiency. Therefore, a combination of methods is likely to be required, on a case-by-case basis.

3.7.3 Revenues

On revenue, the approach is likely to be comparable, but with some key differences. While the USP's calculation may be realistic, it is likely to only be one scenario. To assess the response to a change in the service offered by the USP needs consideration of the sensitivity of customer needs to changes in service quality, and also the price elasticity and cross-elasticity, to the extent that the different services offered and their relative attractiveness have changed. Sources evidence could be econometric evidence, based on historical trends and economic analysis, based on analysis of customer use of mail, and therefore customers' theoretical response to a change in products offered.

Our view is that the USP would be best placed to gather this evidence, but that in the most material cases, it may be appropriate for the NRA to gather its own views, as well as reviewing the evidence.

3.7.4 Treatment of market uncertainty

The analysis above is likely to provide views on whether the reference scenario provided is credible. However it is also likely to show significant uncertainty about the actual impact. The net cost will be subject to uncertainty over:

- Future volumes within the network
- Price elasticity and cross-elasticity as a result of changes to the service level; and
- The level of cost savings achievable from changes to service specification

Therefore any conclusions are likely to be based on a range of potential outcomes. These will be based on a combination of judgments around the potential for cost reduction from reduction in

network specification and uncertainty over the level of price elasticity. It is unlikely that there will be sufficient econometric evidence to demonstrate the likely demand response to changes in product specification, but there is the potential for ranges of potential outcomes to be established.

In that context the decision for the regulator over the appropriate level of the net cost needs to be taken in the round, taking into account the uncertainty over the potential outcome together with the wider risks of either setting too high or too low a level for the net cost. This will need to be considered on a case-by-case basis and will allow the NRA to take into consideration wider implications when concluding on the level of net cost and the implications for how that net cost is likely to need to be funded. This will pose challenges where there is competing economic evidence for different responses, but may also offer flexibility where there are wider considerations within the postal market and the NRA's duties which need to be considered when coming to a conclusion on the net cost.

This indicates a number of possible options for the regulator:

- No net cost determination. Without sufficient evidence, it is not appropriate to require funding of the net cost;
- Accept the USP's proposal, as long as it is consistent with a sensible outcome;
- Based on the NRA's judgment, assume that some but not all of the net cost calculation proposed by the USP should be taken into consideration.
- Where there is market uncertainty, the NRA may conclude on a range of feasible options for the net cost. The appropriate answer between these options may also be impacted by the implications of the net cost calculation. The calculation of any burden and how this should be funded will need to take account of the different risks of setting the net cost that is too high against setting a net cost too low in the context of the NRA's duties. It may also need to take into consideration the ability of the NRA to assess the scale and impact of the net cost calculation over time, taking into changes in the USP's costs and changes in the volume of mail.

3.7.5 Questions when verifying the net cost

To be able to verify the net cost presented by the USP the NRA can ask following questions:

- Which model the USP has used to calculate net costs?
- Who made a control of this calculation within the USP? The NRA should take into the consideration that appropriate authorities within the USP controlled and verified the calculation of the Net Cost.
- When USP is assuming a reduction in the direct avoidable costs in the process of net cost calculation, the USP should in detail explain the reasons for it and also provide the financial statements before reduction of costs and after reduction of costs, so that the NRA could verify that the reduction of costs is justified.
- The same should apply in respect of the overhead costs. The USP should describe in detail why certain overheads were excluded or reduced.

- The appropriate form of the financial statements and a reconciliation where appropriate should be provided to the NRA.
- The NRA should check and verify that USP took into account all other relevant elements, including any intangible and market benefits which accrue to a postal service provider designated to provide universal service, the entitlement to a reasonable profit and incentives for cost efficiency.
- How the USP has ensured that the calculation of the net cost of specific aspects of universal service obligations has been made separately and that the calculation avoided the double counting of any direct or indirect benefits and costs.

Question 12 (section 3.7): How would you make a cost sensitivity measurement?

Question 13 (section 3.7.3): We are seeking views as to what evidence would be sufficient. This could include: Survey evidence; Econometric evidence, based on historical trends; and economic analysis, based on analysis of customer use of mail, and therefore customers' theoretical response to a change in products offered. Please provide reasons for your answer?

Question 14 (section 3.7.5): We are seeking views on the questions to be asked for verifying the net cost.

4 Alternatives to a (theoretical) reference scenario

4.1 Public procurement

Due to the obligation of a postal operator to provide universal services, financial losses may arise for the operator as a result of the particular technical or regional conditions, for which compensation is needed (see 7.3 in the Directive 2008/6/EC). If a legal obligation of one or more postal operators to provide universal services is not imposed, other mechanisms are available to facilitate universal service provision under financially well-balanced conditions, or - if this should not be economically possible - to minimize financial losses from the service provision.

The public procurement / tender proceeding can be an alternative that takes account of the principles of a free market economy and competitive conditions. The purpose is to identify and to delegate universal service provision to the postal operator best placed, in comparison with the other competitors in the tender procedure, to provide the universal service in terms of scope, quality and price. The intention of tendering is to use potential competition between the possible providers to induce the most economic outcome, i.e. the provision of the US (in the defined quality) at least costs.

The result of tendering is thus essentially the creation of market and cost transparency. The information deficit of the regulatory authority concerning the analysis and evaluation of the cost of universal service and the suitability of possible postal service operators to provide this universal service is largely eliminated. But also if a postal operator is obliged to provide universal services, an economic equivalent to the net cost may lead to corresponding financial compensation. This is based on a cost- and profit-oriented determination of the level of any compensation required.

4.2 Public procurement and net cost calculation – Case study: Sweden

A calculation of the net cost might be of interest or required even though financing through public funds or a cost-sharing mechanism is not applied. In Sweden the Government assessed that there would not be any need to finance universal service in a foreseeable future. In the long run however it could not be excluded that the provision of US entailed a net cost that constitutes an unfair financial burden due to future changes in the market. Taking these costs into consideration a possibility to safeguard the universal service through procurement was introduced in the revised Postal Services Act in 2010. The Government underlined that further investigations have to be made before initiating a procurement procedure. As a procurement procedure could be initiated only on condition that it is necessary due to the cost for providing these services the legislation implies that a net cost calculation has to be made prior to this procedure.

4.3 Tendering of universal services - Case study: Germany

4.3.1 Financial compensation for loss-making universal service provision

Universal services have been provided in Germany since full market liberalization on 1 January 2008 without any company having to be obliged to do so as all operators active in the market contributed to its provision. Up to that time, Deutsche Post AG had a legal obligation to provide universal services (i.e. was the designated operator). The basic assumption, that services determined as universal services are usually offered without intervention by the regulator on the market, has so far been confirmed. Nevertheless, it cannot be ruled out that in the future, particular universal services will not be provided or will be provided inadequately because the revenues are insufficient to cover the cost of universal service provision and thus the service could be provided only at a loss. In this case, all postal licensees with sales in the licensed area exceeding 500,000 EURO, are obliged to contribute to finance the provision of the relevant universal service. The contribution may be provision of the loss-making universal service - or instead - a compensatory payment to proportionally offset the financial losses of the service providing company.

The starting point is the declaration from the regulatory authority that a universal service on a relevant product and / or geographic market is not sufficiently or appropriately provided. The regulatory authority then publishes a notice to this effect in its Official Gazette. In addition, the authority announces that it will use either the instrument of obligation or the tender procedure if no

company declares itself willing, within a period of one month of publication of the declaration, to provide the universal service without payment of compensation.

This interim step takes into account the fact that information gaps may exist within the NRA or within the market more generally. In this way it should be determined whether a company sees an opportunity to provide the universal service economically (i.e. including covering its relevant costs) and thus without need for financial compensation. Upon expiration of the one-month period, the regulatory authority may oblige a company to provide the relevant universal service and close the service provision gap.

Such obligation may only be imposed on a licensee providing postal services in the geographically relevant market or in a geographically adjacent market and having a dominant position in that market. Where several licensees jointly have a dominant position in the relevant market, the regulatory authority may, after hearing the eligible licensees, oblige one or more of these companies to provide the relevant universal service. Such obligation may not unduly prejudice licensees thus obliged in relation to other licensees.

Where a company that is to be obliged to provide a universal service shows sufficient cause and furnishes sufficient prima facie evidence that it would be financially prejudiced as a result of this obligation, the regulatory authority initiates a tender procedure for the service causing the financial disadvantage. The tender procedure is also applied when an obligation from the outset is not possible, for example, because dominance cannot be determined unambiguously. The regulatory authority may, however, refrain from tendering, if it does not appear appropriate, for example, if the authority knows that only one company would be able to provide the universal service and thus a competitive tender cannot come about because of a lack of potential bidders.

Before initiating tendering, the regulatory authority details the object of the tender. In particular the authority has to describe which universal service will be provided in which area or in which place as well as the requirements on the quality of service provision as laid down in the Postal Act and the Postal Universal Services Ordinance (e.g. delivery requirements, the number and distribution of collection points, etc.).

The tendered service is awarded to the company that meets the general eligibility requirements and requires the least financial compensation for providing the service. The suitability of a company is assessed using the following criteria:

- Performance (e.g. type and scope of used or planned means of production, such as personnel, facilities, transportation facilities and other tangible means, information on workflows, financial situation, etc.),
- Reliability (e.g. audit of compliance with relevant legislation, such as postal, data protection, commercial and other laws, certificate of good conduct, criminal record etc.),
- Special knowledge (e.g., information on current activities in the postal system, trained staff, evidence of knowledge of the relevant postal and data protection regulations, etc.).

Before initiating a universal service tender, the regulator has to specify the characteristics against which the suitability criteria of performance, reliability and special knowledge will be evaluated. In

assessing the suitability criteria, the specific requirements of the service being tendered are – also for reasons of proportionality - to be considered accordingly. For example, the requirements concerning a shortfall in local collection points (e.g. lack of a local post agency) cannot be the same as those concerning a nationwide deficit (e.g. in delivery). Furthermore, the regulatory authority stipulates detailed rules for tendering. These rules must be objective, comprehensible and non-discriminatory. European and national regulations on official contracting terms for award of services are to be observed accordingly.

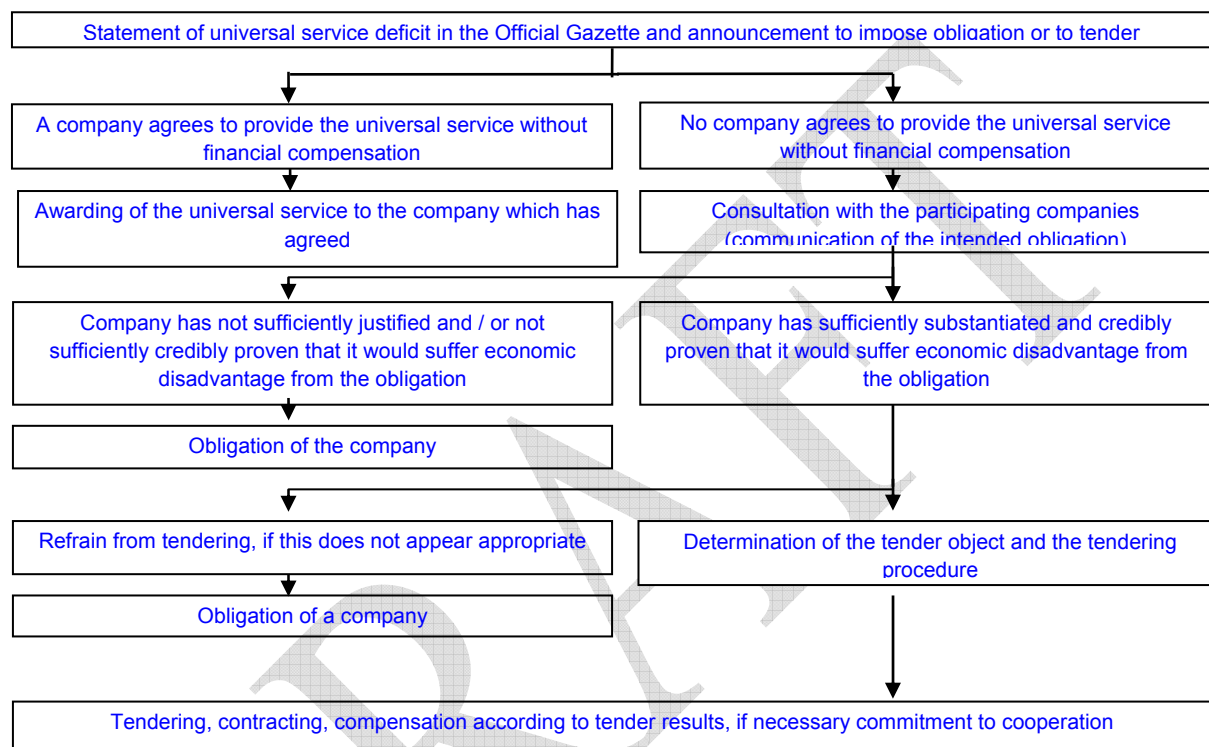


Chart: Overview of steps

Companies called upon to provide universal services may be obliged by the regulatory authority to cooperate. If the companies fail to reach an agreement on the modalities of their cooperation, the regulatory authority is to be involved as an arbitration body. The regulatory authority may specify the terms of cooperation and make them legally binding. This can be necessary if the companies concerned undertake no negotiations or, if they fail to reach agreement, do not involve the regulatory authority as an arbitration body.

The obligation to cooperate is to be seen against the background that, after the removal of the remaining monopoly (reserved area) of Deutsche Post AG on 1 January 2008, postal services are provided by a larger number of market participants who, for the most part, operate only at regional level. Hence, nationwide universal service can possibly only be achieved through cooperation.

After the tender process has been conducted and the universal service awarded to the applicant with the best economic offer, the universal service provider has a right to be granted financial compensation according to the tender result.

The compensation amount represents the market price formed in the competitive tender, to be paid in addition for loss-making provision of the universal service. This also covers all other anticipated (by the respective provider) and monetary tangible and intangible benefits as a result of the universal service provision (e.g. image factors, etc.), which lowers the price. In other words, the compensation paid to the company thus represents only the additional financial burden for providing the universal service, a service which an economically acting (profit-oriented) company would not otherwise offer. The incentive to provide universal service as cost effectively as possible is provided by the competitive tendering and the selection of a cost-effective bid.

Determining financial compensation for universal service provision by way of competitive tendering is a competitive equivalent to compensation based on net cost calculation. It has the advantage that the level of the compensation is determined in the bidding process and that the regulator does not have to calculate the net costs. This should overcome any impact of information asymmetry.

The compensation amount is to be financed by a levy paid to the regulatory authority. Every licensee with sales exceeding 500,000 EUR in the calendar year for which the compensation is to be granted is obliged to pay this fee. At the end of the calendar year the regulatory authority will determine the share of the contributing licensees and notify the companies concerned accordingly. The amount of the fee is computed according to the ratio of the licensee's sales to the total sales of all licensees obliged to contribute.

A dominant company whose calculated revenue share is 90 percent would therefore contribute 90 percent of the compensation amount. As a consequence, the higher the sales-related market share, the higher the incentive – taking advantage of further efficiency gains, where appropriate – to continue provision of the loss-making universal service and to avoid competitive tendering.

4.3.2 Financial compensation for a company obliged to provide universal service

The regulatory authority may waive tendering for a special loss-making universal service (deficit of a single product or in a local area) if tendering does not appear appropriate, for example if market conditions are not expected to yield well-functioning competitive tendering. In this case, a dominant company will be obliged to provide the loss-making service. This company could claim compensation for the obligation imposed by the regulatory authority if it shows that the cost of providing the service efficiently, inclusive of adequate interest on capital employed, will exceed the revenues from that service provision.

The amount of compensation determined by a cost and revenue comparison can be viewed as an equivalent to compensation based on a net cost calculation. Assuming that, under normal market conditions, the income from the respective service covers the cost of service provision (including a normal rate of return), it can be seen in the case of a deficit service that there is obviously no willingness on the part of the users to cover the cost of the service completely.

An economically rational provider would then match the scope and quality of service provision with the costs and achievable revenues - until the service is discontinued, if no equilibrium is possible in terms of cost recovery. Since the requirements of the universal service may not be linked to the needs of the market, this mechanism does not apply, and a company operating according to

economic rationality (profit oriented) would provide the service only if appropriate additional compensation was paid. Determining the amount of compensation on the basis of the cost of efficient service provision minus actual revenues ensures that compensation covers only the financial loss arising from providing the universal service. Without a corresponding universal service obligation long-term financial losses are not expected due to the possible adjustment mechanisms.

5 The assessment whether the net cost constitutes an unfair financial burden

The Third Postal Directive 2008/6/EC in Article 7 states:

“Where a Member State determines that the universal service obligations...entail a net cost and represent an unfair financial burden on *the universal service provider(s)*, it may introduce:

- (a) *a mechanism to compensate the undertaking(s) concerned from public funds; or*
- (b) *a mechanism for the sharing of the net cost of the universal service obligations between providers of services / or users”.*

The Third Postal Directive specifically requires that the net cost of USO must be considered as unfair burden on the USP in order for USO fund to be granted or sharing mechanism established. In order for compensation or cost sharing in favour of USP to be implemented (under Article 7(3) there must be both – a net cost within the meaning of Annex I and unfair financial burden to the USP. The order of assessing these two concepts makes difference – the net cost of the USO is the combination of the net costs of each specific component of USO, taking into account intangible benefits, whereas the unfair financial burden is directly related to net cost of USO, but not the same element.

However the concept of unfair financial burden has not been clearly defined in the Third Postal Directive. It follows, that the Directive gives NRAs discretion in determining what constitutes an unfair financial burden and discretion to decide whether USO is subject to unfair burden.

Court of Justice defines unfair burden as: “(..) a burden which, for each undertaking concerned, is excessive in view of the undertaking’s ability to bear it, account being taken of all the undertaking’s own characteristics, in particular the quality of its equipment, its economic and financial situation and its market share.” According to the Court, “it falls to the national regulatory authority to lay down general and objective criteria which make it possible to determine the thresholds beyond which – taking account of the characteristics mentioned in the preceding paragraph – a burden may be regarded as unfair (...)”.³⁹

The Courte of Justice confirms that NRAs have significant discretion in relation to the determination of an unfair burden. In this context, a number of factors are potentially relevant to the concept of unfairness and should be assessed by NRAs. A positive net cost does not automatically mean that the

³⁹ Judgment of the EU Court of Justice of 6 October 2010, on case C-222/08, available at <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62008J0222:EN:HTML, on 01.01.2011>.

burden of net cost is unfair. For the net cost to be an unfair burden a number of conditions need to be met:

- There must be a verifiable direct net cost;
- There must be a positive net cost (the intangible benefits of USO must not outweigh the net cost);
- The positive net cost is material compared to potential administrative cost of establishing and implementing a sharing mechanism (if the positive net cost is relatively small, NRAs should assess whether or not the cost of establishing a sharing mechanism would be disproportionate to the net transfers to USP);

In order to make an assessment of unfair financial burden the NRAs should analyse a number of factors that broadly relate to market conditions and degree of competition in the market. In this aspect we present some criteria that could be used by NRAs:

- Financial position of USP:
 - NRAs should assess if positive net cost significantly affects a USP's profitability and ability to earn a fair rate of return on capital employed;
 - Changes in profitability (the burden is unfair if the USP's market power is not sufficient to counterbalance the weight of the USO to maintain a reasonable profit);
 - Significant difference in competitors profit level (Universal services provision imposes an unfair burden if the USP's profit is lower than its competitors);
 - changes in accounting profits and related financial measures analysis (for example EBITDA margins obtained by USP significant decreases);
- The level of postal services usage (recently the demand for an usage of postal services are permanently declining because of Electronic substitution. The declining levels of usage of postal services will automatically reduce the revenue of USP and possibly can be a factor increasing the level of unfairness. Although fixed costs do not vary with changes in production or sales volume. In such a situation the fixed cost of universal service infrastructure usually remain constant and relatively high. For this reason the USP probably may face economic difficulties);
- Cost and revenues of US, as well as ratio between net cost and revenues;
- Market shares-in case that USP is able to maintain sustained high market shares, USP will not represent an unfair burden resulting from the US provision. (In the European practice in Electronic Communications sector market shares in revenues above 80 % are used in several countries to assess non-existence of unfair burden);
- Other criteria set by NRAs.

Question 15 (section 5): Bearing in mind the ECJ rulings on net cost calculation in telecoms which method would you use to assess whether the net cost constitutes an unfair financial burden. Please elaborate on the criteria.

6 Preliminary results on the VAT questionnaire

ERGP has compiled the results of a questionnaire sent to all NRAs participating in the ERGP. The result is presented in this section, which illustrates the state of play as regards the VAT in the postal market.

It includes issues such as the scope of VAT exemption, which operators that are subject to exemption and for which services, and the tax rate for services that are not exempted.

VAT on postal services

29 countries answered the questionnaire sent out to all the European countries.

A. Does VAT exemption apply to postal services in your country?

26 countries apply VAT exemption to postal services and three countries don't.

B. If YES (in question A), what postal services are exempted from VAT? (I.e. the VAT-rate is 0%)

The majority of the respondents (69%) apply an exemption on VAT to all universal services provided by the USP and according to national law. Universal service obligations include mostly the handling of postal items up to 2 kg, the handling of postal parcels up to 20 kg, registered mail and declared value services. Three countries (Poland, Hungary and the Republic of Macedonia) have a national law arrange that an exemption on VAT could be applied on all postal services provided by the USP.

C. Did your country recently lift the exemption for some postal services?

Eight countries say they recently did lift the exemption for some postal services, 20 countries say they didn't and one country did not answer to this question.

D. Which operators are (or would be) subject of VAT exemption?

In five countries all operators are exempted from VAT, in 16 countries it is only the USP which is exempted from VAT, five countries have answered that it is only the operators that provide universal postal services that are exempted from VAT, one country has no VAT exemption at all and two countries did not answer to this question.

E. If YES (in question C), for which services?

With the removal of the reserved area, services under monopoly are subjected to VAT. Thus, some services were removed from the USP scope (i.e. the industrial direct marketing, postal money order service) and can't be exempted anymore. The scope of VAT exemption can also be reduced, and services like bulk mail and access-services no more benefit from the exemption. Exemption can also focus on universal services only, and not on all postal services.

F. If YES (in question C), how did the operator react? (Where there any changes in final prices...)

Small changes, from none to a reduction of prices.

G. What VAT-rates are applied to the postal services that are not exempted?

The average VAT rate applied on postal services that are not exempted is 19.3% if considering all the respondents, and 20.25% for the EU27 member states. There is quite a disparity between European countries as the rate applied in one country (Switzerland) is 8% whereas in three countries (Sweden, Denmark and Norway), it is fixed at 25%.

H. If your country allow access to the postal network (such as downstream access), how is the VAT allocated (when applicable) when an operator liable to VAT make use of the downstream access regime or other options to use the postal network provided by an exempted operator? For example if an operator liable to VAT make use of the downstream access regime provided by an exempted operator, does the operator making use of the access pay none or full VAT on the bought access services even if the operator providing access in its network is exempted from VAT?

Few countries actually mandate down-stream access to the postal network. Some NRA's are not in possession of this kind of information. Five countries (Slovenia, Portugal, Germany, Greece and the Netherlands) allow access for operators that are liable to VAT, whereas in the one country (UK), access is exempted from VAT.

Question 16 (section 5): Has a non-homogeneous VAT system caused problems or competition issues in your country and/or across the EU? / Which problems would such a system cause if it was introduced in your country? Please provide details, as relevant.

Appendix 1

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