



Definition, classification and methodology for
evaluating intangible benefits related to
universal postal service

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NOTICE

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Contents

1	Introduction	1
2	Review of literature on benefits	3
2.1	Benefits in the postal sector	3
2.1.1	Introduction	3
2.1.2	Benefits discussed in literature	4
2.1.3	Classification schemes	11
2.1.4	Methods to quantify intangible benefits	12
2.2	Intangible benefits in the electronic communications sector	16
2.2.1	Identification and characterisation	16
2.2.2	Importance	18
2.3	Conclusions of literature review	20
3	Classification of commercial benefits in the postal sector	22
3.1	Introduction	22
3.2	Categories for classification	23
3.3	Intangible benefits of the universal service obligation	26
3.3.1	Economies of scale/scope	26
3.3.2	Enhancement of corporate reputation and brand value	27
3.3.3	Enhanced advertising effect	27
3.3.4	Better bargaining position	28
3.3.5	Privileged access to the philately market	29
3.3.6	VAT exemption	29
3.3.7	Exemptions from customs and excise regulations	30
3.3.8	Exemption from transport licence	31
3.4	Tangible benefits of the universal service obligation	32
3.4.1	Demand complementarities	32
3.4.2	Press subsidies	32
3.5	Other commercial benefits	33
3.6	No benefits in fact	37

4 Methodologies for quantifying intangible benefits of the universal service obligation in the postal sector	39
4.1 General framework	39
4.2 Proposals for quantification	46
4.2.1 Enhanced corporate reputation and brand value	47
Excursus: Contingent valuation as an approach for determining the willingness of customers to extend more business to the universal service provider	48
4.2.2 Better bargaining position	50
4.2.3 Enhanced advertising effect	53
4.2.4 Privileged access to the philately market	54
4.2.5 VAT exemption	55
4.2.6 Exemptions from customs and excise regulations	57
4.2.7 Exemption from transport licence	58
4.2.8 Economies of scale	59
5 Conclusions	61
References	63

Abbreviations

%	Percent
AGCOM	Autorità per le garanzie nelle comunicazioni, Italy
ARCEP	Autorité de Régulation des Communications Electroniques et des Postes
bn	Billion
Cedex	Courrier d'entreprise à distribution exceptionnelle
DKK	Danish crown
EBIT	Earnings before interest and tax
EC	European Communities
EEC	European Economic Community
e.g.	Exempli gratia = for example
etc.	Et cetera
ETOE	Extra-territorial office of exchange
EU	European Union
GBP	Pound Sterling
HM Treasury	Her Majesty's Treasury (UK Ministry of Finance)
IBPT	Institut belge des services postaux et des télécommunications, Belgium
i.e.	Id est = that is
LRMC	Long-run marginal costs
m	Million
NAC	Net avoidable costs
Ofcom	Office of Communications, UK
Oftel	Office of Telecommunications, UK
Postcomm	Postal Services Commission, UK
REIMS	A multi-lateral agreement on terminal dues between European postal operators
SFR	Swiss Franc
UK	United Kingdom
UPU	Universal Postal Union
USO	Universal service obligation
USP	Universal service provider
VAT	Value added tax
WIK	Wissenschaftliches Institut für Infrastruktur- und Kommunikationsdienste

1 Introduction

Background of the study

According to Directive 2008/6/EC, the present reserved area in France will need to be abolished by the end of 2010. According to this directive, Member States may provide compensation for the net cost of universal service. Under this directive (the 'Third Postal Directive'), compensation for USO net costs may be granted from public funds or by means of a compensation fund financed by contributions of postal operators and/or users of postal services. Such financing would only be necessary if

- a) it is determined that a net cost exists that is calculated taking into account "any *intangible* and market benefits" (Annex I, Part B); and
- b) this net cost represents "an unfair financial burden on the universal service provider(s)" (Article 7).

The net cost of the universal service obligation (USO) is thereby the difference between the profit of a postal operator subject to a USO and the profit of the same operators without this obligation.

Objective and elements of the study

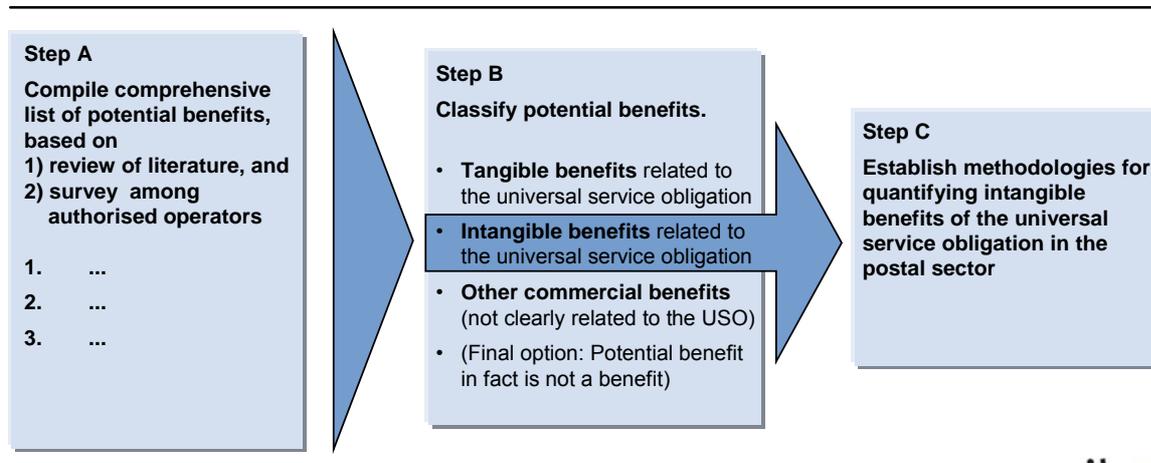
Against this background, the specific objectives of this project are to identify and classify *intangible benefits* that accrue to the designated universal service provider, and to establish a methodology to determine the value for each of such intangible benefits.

The value of intangible benefits accruing to the universal service provider is conceptually distinct from other benefits of the universal service provider.

- For example, there may be direct (tangible) benefits of providing universal service. Such direct (tangible) benefits are relevant for determining the net cost of the universal service obligation – but these direct benefits are not core subjects of this project. A particular task of this study therefore is to provide a stringent framework for distinguishing between intangible benefits of universal service on the one hand, and direct (tangible) benefits on the other hand.
- Benefits of providing universal service must further be distinguished from other commercial advantages of the universal service provider that are not clearly related to the universal service obligation (USO). While such commercial benefits must not be included for the calculation of USO net costs, they can be very important and manifest advantages incumbents in the postal sector have. It may thus be necessary and useful to consider such benefits – at a later stage – for evaluating whether or not the USO net costs represent "an unfair burden".

The main elements of the study are indicated by the figure below.

Figure 1 Main elements of the study



Source: WIK-Consult.

The first step of the study (step A, chapter 2) compiles a comprehensive list of potential benefits with respect to the postal sector. The list is based on a review of literature and an operator survey. In order to take account of all relevant (potential) benefits in France, all postal operators authorised by ARCEP were surveyed by email. The operators were asked to name benefits that La Poste enjoys as being the universal service provider, and that they consider as important. In total, input was received from six postal operators, and telephone interviews were conducted with those operators to discuss their written input. The literature review further seeks to identify possible classification schemes for benefits of the USO, and methods for quantifying these benefits.

Based on the list, step B of the study classifies the potential benefits into tangible and intangible benefits related to the USO; and other commercial benefits that are not related to the USO (chapter 3).

Finally, the study discusses and recommends methodologies for quantifying intangible benefits of the USO in the postal sector (step C, chapter 4).

For ARCEP, as for all regulators that implement the Postal Directive, all commercial benefits related to the universal services, both tangible and intangible benefits, should be relevant in assessing the net cost of the universal service obligation. In addition, other commercial benefits may be considered to assess whether or not the USO net cost is 'unfair' and should therefore be compensated. According to the terms of reference of this study, however, this report discusses quantification methods only for intangible benefits of the USO.

2 Review of literature on benefits

2.1 Benefits in the postal sector

2.1.1 Introduction

The first relevant mention of “benefits” related to a postal provider which is obliged to provide universal services is in a study of NERA in 1998: “Universal service burdens arise when a postal administration is obliged by government to supply customers or services in circumstances where the overall revenues generated from doing so are less than the costs of supply, taking account of any revenue benefits from providing universal service.”¹ However, this study does not deal with benefits specifically.

Postcomm (2001) deals with potential benefits from universal service provision more systematically. Postcomm states: „The sum of any “losses” should be netted off against any wider benefits that Royal Mail may enjoy from being a universal service provider“.²

Directive 2008/6/EC³ 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 States⁴ 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 B).⁵

This section summarises the review of relevant literature dealing with benefits related to the obligation to provide universal postal services. The review includes the analysis of academic literature as well as of applied research carried out by regulatory authorities (or by consultants on behalf of regulatory authorities).

The review focuses on three topics:

¹ See NERA (2008), p. 33.

² See Postcomm (2001), p. 3.

³ Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service (OJ L 15/14, 21.2.1998) amended by Directive 2002/39/EC of the European Parliament and of the Council of 10 June 2002 amending Directive 97/67/EC with regard to further opening to competition of Community postal services (OJ L 176/21, 5.7.2002) and by Directive 2008/6/EC of the European Parliament and of the Council of 20 February 2008 amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services (OJ L 52/3, 27.2.2008). p. 3).

⁴ Public funds or a compensation fund financed by contributions of postal operators and/or users of postal services.

⁵ Emphasis added.

- benefits of the universal service obligation mentioned in the literature;
- classification schemes for the respective benefits (tangible benefits and intangible benefits with respect to USO, benefits not related to USO);
- methods to quantify benefits.

2.1.2 Benefits discussed in literature

The following references deal with benefits in connection with the provision of universal postal service (listed by year of publication, in ascending order):

- Cremer/De Rycke/Grimaud (1997): Costs and Benefits of Universal Service Obligations in the Postal Sector;
- NERA (1998): Costing and financing of universal service obligations in the postal sector in the European Union;
- Rodriguez/Storer (2000): Alternative approaches to estimating the cost of the USO in Posts;
- Postcomm (2001): An assessment of the costs and benefits of Consignia's current Universal Service Provision;
- Barkatullah/Ramada (2002): Quantification of USO Benefits for the USP;
- Burns/Carslake/Houpis (2002): Brand Loyalty and Limited Entry in Postal Markets;
- London Economics (2002): Benefits of Universal Services Provision to Consignia (Report for Postwatch);
- BDO/WIK-Consult (2007): Studie über die (Brutto-/Netto-) Last aus der Grundversorgungsverpflichtung anhand des Postprojekts „Rechnungswesen 2007“ (Report for DETEC);
- Copenhagen Economics (2008): What is the cost of Post Danmark's universal service obligation? (Report for the Danish Chamber of Commerce).

In this literature, the following benefits were addressed:⁶

Demand complementarities

There are two studies that discuss USO benefits caused by demand complementarities. London Economics (2002), and Barkatullah/Ramada (2002), which are estimating the value of this benefit for the UK incumbent Consignia (previous name of Royal Mail).

⁶ Only those benefits were selected which apply to the general conditions of the French postal market. This is true if there is a comparable regulation (e.g. VAT exemption) in the French postal market as in the market the identified benefit stems from.

Demand complementarities imply that that 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.⁷

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.

Economies of scale/scope

According to London Economics (2002), economies of scale and scope arising from the USO can be found “within USO” products, “between USO” products and “between USO and non-USO” products. Economies of scale within USO products arise when average production costs decrease with the total quantity produced. Economies of scope between USO products arise 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 could be 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,⁸ for example if USO-products and non-USO products are delivered by the same postman.

For example, Swiss Post has an relatively high volume of postal items: Including addressed mail, unaddressed mail as well as newspapers and magazines (subscription), Swiss Post delivers about 700 postal items per year and per inhabitant of Switzerland. This combined delivery of USO and non-USO items is an example for economies of scale and scope.⁹

There are four main studies dealing with the benefit for an obliged universal service provider on the base of economies of scale and scope: London Economics (2002), Barkatullah/Ramada (2002), and Postcomm (2001). These studies estimate economies of scale/scope with respect to UK incumbent Consignia/Royal Mail. The fourth study

⁷ See London Economics (2002), p. viii, Barkatullah/Ramada (2002), p. 6f. Barkatullah/Ramada (2002) is an extract of the study of London Economics (2002).

⁸ See London Economics (2002), p. 108f; Barkatullah/Ramada (2002), p. 15. Indirectly, Postcomm (2001), p. 39ff, indicates economies of scale when estimating the total costs that can be avoided (net avoidable costs, NAC) 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.

⁹ See BDO/WIK-Consult (2007), p. 39.

from BDO/WIK-Consult (2007) discusses amongst other potential benefits from being a universal service provider with respect to Swiss Post.

Enhanced advertising effect

London Economics (2002) mentions a direct advertising effect of Royal Mail's universal service obligation.¹⁰ In particular, the postal outlets and their design (logo, colours) represent the brand of Royal Mail, comparable to advertising space. In addition, when delivering postal items, postmen (and their corporate outfit with the colours 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.

The advertising effect of a postal provider's USO is mentioned as a USO benefits in the studies of London Economics (2002) and Postcomm (2001).

VAT exemption

Most universal postal operators in Europe are exempted from value added taxes (VAT), at least for universal service products.¹¹ This is a direct price advantage for universal service providers compared to competitors which do not benefit from such an exemption. VAT charged by competitors (not operating under the USO) does not matter to business customers that can reclaim the VAT paid. However, a great number of large customers do not pay VAT and thus cannot reclaim the VAT on their postage. This applies for most countries to the financial sector where almost all of the product portfolio consists of zero-rated services and private organisations that provide services to their members. Also, private senders, government institutions, and charities do not pay VAT and cannot reclaim VAT on postage.¹²

In any event, the process of claiming money back adds transaction costs to customers and competitors in a way that a privileged universal service provider can avoid. If universal service providers did not have this VAT exemption their (gross) prices might increase and they might lose volumes to alternative operators and other means of communication.¹³

¹⁰ See London Economics (2002), p. 96f.

¹¹ See WIK-Consult (2009), p.93f.

¹² See Copenhagen Economics (2008), p. 82, Postcomm (2001), p. 59, London Economics (2002), p. 160ff., Barkatullah/Ramada (2002), p. 31.

¹³ See Postcomm (2001), p. 59.

VAT exemptions are discussed as USO benefits in the studies of Postcomm (2001), London Economics (2002), Barkatullah/Ramada (2002), BDO/WIK-Consult (2007), and Copenhagen Economics (2008).

Interest profits due to prepaid postage

Postal incumbents achieve a financial advantage (interest) by selling stamps that are devalued at a future date. This prepaid system analogously applies to franking machines which are charged (valued) 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.¹⁴

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 such as Royal Mail. For example, extra costs could be incurred by customer confusion and the generation of more enquiries at call centres.¹⁵

Based on these considerations, the uniform 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.¹⁶

The benefit from uniform tariffs for universal service providers is discussed in the following studies: Postcomm (2001), London Economics (2002), and Barkatullah/Ramada (2002).

Strategic advantage for funding predation and expansion

If a universal service provider is allowed a reserved area the provider is enabled to use the (excess) profits generated in the reserved area

¹⁴ See Copenhagen Economics (2008), p. 80f.

¹⁵ See Postcomm (2001), p. 60, London Economics (2002), p. 163.

¹⁶ See Barkatullah/Ramada (2002), p. 31.

- a) to fund acquisitions of competitors that would not have occurred on commercial terms otherwise and,
- b) to cross-subsidise predatory behaviour in commercial services (e.g. the parcel market).¹⁷

This benefit is related to the following studies: London Economics (2002), Barkatullah/Ramada (2002).

A similar advantage exists for operators that do not have a legal monopoly, but have significant market power.

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.¹⁸

Furthermore, the management of the universal service provider has to deal with a powerful workforce. If the universal service provider is sheltered by a reserved area it is likely that at least parts of the productivity gains of restructuring will benefit employees rather than stockholders or consumers.¹⁹

The better bargaining position of the universal service provider is given attention to in the studies of Postcomm (2001), London Economics (2002), and Barkatullah/Ramada (2002).

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 incumbent over alternative suppliers where they are available.²⁰ This dimension is targeted on the ubiquitous availability of the services of the universal service provider.

¹⁷ See London Economics (2002), p. 20, Barkatullah/Ramada (2002), p. 31.

¹⁸ See Postcomm (2001), p. 61, London Economics (2002), p. 19 and 164, Barkatullah/Ramada (2002), p. 31.

¹⁹ See London Economics (2002), p. 19, Barkatullah/Ramada (2002), p. 31.

²⁰ See Postcomm (2001), p. 60, London Economics (2002), p. 69 and p. 163.

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. In this sense, ubiquity may also serve to reduce customer switching.²¹

The benefit of ubiquity for a universal service provider is mentioned in various studies.²² A systematic examination is included in Postcomm (2001), London Economics (2002), and NERA (1998).

Enhancement of corporate reputation/brand value

Most incumbents/USP provide high-quality postal services, throughout the entire country. This results in a high corporate reputation and a 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.²³ Reducing the quality below USO levels may lead to a reduction of the company's reputation and the brand value, respectively.

This benefit is mentioned by London Economics (2002), Barkatullah/Ramada (2002), and, partially, by Postcom (2001).

Customer life-cycle effect

There are different interpretations with respect to life-cycle effects as a benefit for universal postal providers. Postcomm (2001) mentioned that "loss-making" services (in sense of deliveries to addresses and customers) may be overcompensated if these addresses/customers generate "outward" flows of mail that will be profitable. Hence, if the universal service provider chooses not to deliver to the unprofitable elements, it would lose revenue from the profitable elements.²⁴

London Economics (2002) argues that life-cycle effects are related to the possibility that a customer who is currently unprofitable for an operator to serve might become profitable in the future. By serving a customer now (unprofitably), the USP may increase its probability of keeping that customer when he or she becomes profitable in the future.²⁵

²¹ See Postcomm (2001), p. 60, London Economics (2002), p. 28, and NERA (1998), p. 38 and 67.

²² See for example Rodriguez/Storer (2000), p. 289, or Panzar (2008), p. 23.

²³ See London Economics (2002), p. 73f., Barkatullah/Ramada (2002), p. 31, and—more generally—Postcomm (2001), p. 57f. For general consideration about the brand value of a postal operator see Burns/Carlake/Houpis (2002), p. 73.

²⁴ See Postcomm (2001), p. 60.

²⁵ See London Economics (2002), p. 22f.

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.²⁶

The privileged access to the philately market is characterized as a benefit in the following studies: London Economics (2002), Barkatullah/Ramada (2002), and Copenhagen Economics (2008).

Recipient database

In some countries, universal service providers are exclusively allowed and obliged to access public registers. For example, Copenhagen Economics argues that Post Danmark has a unique access to public registers such as the Danish Civil Registration System. In addition, it is usually only Post Danmark that is notified of temporary changes of address. Post Danmark 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 database.²⁷

Parking/stopping exemptions

In some countries, there are special rights for universal service providers with regard to parking or stopping of vehicles. In UK, for example, the universal service provider is allowed to park without paying a fee.²⁸ This is a cost advantage as alternative operators have to look for parking space, pay for parking, or get fined for stopping while they deliver). Furthermore, the universal service provider in the UK is allowed to stop on the street for delivering or collecting mail (these rights are codified in the Local Traffic Orders).²⁹

Parking exemptions are identified as a benefit for the universal service provider in Postcomm (2001), London Economics (2002), and Barkatullah/Ramada (2002).

²⁶ See Copenhagen Economics (2008), p. 19, London Economics (2002), p. 19, Barkatullah/Ramada (2002), p. 31.

²⁷ See Copenhagen Economics (2008), p. 83.

²⁸ See London Economics (2002), p. 163f., Barkatullah/Ramada (2002), p. 31.

²⁹ See Postcomm (2001), p. 59.

Exemptions from customs and excise legislation

Some USP are granted special rights for customs clearance. In UK, for example, section 105 (2) of the Postal Service Act (as of 2000) provides a power for HM Treasury to make regulations as to how the legislation should apply. On this base, customs and excise regulations currently exempt Royal Mail's operations from the usual customs regulations in relation to mail cleared with simplified UPU (Universal Postal Union) documentation.³⁰ This facilitates the passage of Royal Mail international postal packets through the postal system whilst at the same time allowing customs and excise, either itself or through Royal Mail, to secure payment of outstanding duties. Private operators on the other hand are subject to general import/export trade customs control and documentation requirements, which they claim involve considerable added costs.³¹

Until April 2007, Swiss Post was legally privileged with respect to customs clearance. The tariff law provided simplified clearance procedures at reduced rates for Swiss Post compared to private postal operators. Since May 2007, the simplified clearance conditions applies to private postal operators, likewise.³²

Benefits for universal service providers emerging from customs clearance privileges are discussed in Postcomm (2001), London Economics (2002), and Barkatullah/Ramada (2002) and BDO/WIK-Consult (2007).

Ownership of post office (PO) boxes

A further benefit results from the USP's ownership of post office boxes. In Denmark, for example, Post Danmark's has built a network of post office boxes to which only Post Danmark has access (at present). Consequently, if other operators want to deliver a letter to a post office box, they have to send the letter through Post Danmark to the post office box and pay Post Danmark's full rate. This may make it difficult for other operators to compete on the addressed mail market.³³

2.1.3 Classification schemes

Our review of literature has revealed no relevant classification schemes with respect to the distinction between tangible and intangible benefits. One reason may be that the Third Postal Directive (2008/6/EC) introduced this distinction only in 2008. The studies discussed in this chapter were all published before the publication of the directive.

³⁰ See WIK-Consult (2009), p.96f.

³¹ See Postcomm (2001), p. 59, London Economics (2002), p. 164, and Barkatullah/Ramada (2002), p. 31.

³² See BDO/WIK-Consult (2007), p. 41.

³³ See Copenhagen Economics (2008), p. 83.

Copenhagen Economics (2008), the most recent study, divides potential benefits only into 'Goodwill advantages' and 'Other competitive advantages'. The first group contains benefits like Post Danmark's brand, the right to issue stamps with the word 'Danmark', and the right to use the crowned coach horn. The second category includes benefits like VAT exemption, and the disposition of a recipient database. However, there is no distinction between tangible and intangible benefits.

BDO/WIK-Consult (2007) distinguish between benefits for Swiss Post that are related to the provision of the universal service (economies of scale, brand enhancement, self-financed infrastructure, possibility of cross-subsidization within the universal service) and legal privileges of Swiss Post due to *obligation* to provide universal service (exemption from paying profit and value added tax, subsidies for press distribution, simplified customs clearance). A further category includes benefits like interest-free dotation capital, exemption from paying levies to the government, and the government guarantee for liabilities of Swiss Post). Likewise, this study does not distinguish between tangible and intangible benefits.

London Economics (2002) and Barkatullah/Ramada (2002), respectively, classify potential benefits into those which are quantifiable and those which are not. Quantifiable benefits include demand complementarities, brand and other advertising benefits, economies of scale and scope as well as VAT exemption. Benefits which are not quantified are: low transaction costs due to uniform tariff, strategic advantage of acquisition of competitors, public affairs, privileged access to philately market, access to delivery networks of foreign operators at cheap terminal dues, parking/stopping exemptions, life-cycle effects, good corporate citizen effect, and beneficial customs and excise regulations.

2.1.4 Methods to quantify intangible benefits

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

London Economics (2002)

General methodology

London Economics' methodology looks at the full impact on the postal operator resulting from changes in prices and quantities of its complete range of products in the two alternative situations: the status quo with a USO and the alternative without a USO.

The model used demonstrates that if products are “complements”, the interrelationships among product demands will reduce the burden of the USO as sales of loss-making products can contribute to increased sales of profit-making products.

The model also demonstrates that in the presence of economies of scale and scope, traffic in ‘loss-making routes’ will contribute to lower overall unit costs and thus reducing traffic will increase costs on remaining ‘routes’. Given the USO, this increase in costs does not have to be borne by Royal Mail, so this constitutes a benefit due to the USO.³⁴

Estimations on brand value

To investigate and attempt to quantify the relationship between being a USP and brand value London Economics has conducted a consumer survey. Responses provide statistically significant evidence that the impact of the USO on brand image and sales of non-USO products is significant. Results: benefit in terms of brand value: GBP 17.1m to GBP 39.9m; benefit due to increased sales of non-USO products: GBP 3.5m to GBP 8.2m.³⁵

Economies of scale

London Economics has identified potential sources of economies of scale/scope by analysing the postal chain of production and estimating cost functions for Royal Mail’s products (on the base on data provided by Postwatch/Royal Mail). The estimation focused on the evidence of economies of scale in variable costs.

Assuming that Royal Mail’s methodology is able to correctly identify the key drivers of costs, the data on long-run marginal costs (LRMC) seem mainly to incorporate the cost elements that change with mail volumes, i.e. variable costs. Therefore, London Economics has only looked at the impact of lower mail volumes on variable costs (thus ignoring fixed costs) and has found evidence of substantial economies of scale and scope for the entire range of Royal Mail’s mail services analysed (costs elasticities mostly between 0.52 and 0.87).

The estimated cost functions were used to evaluate the impact of economies of scale and scope on the correct measurement of Royal Mail’s costs of the USO. London Economics incorporated the estimated parameters into its general model to compute the cost savings that Royal Mail cannot achieve due to the USO requirement of maintaining ‘loss making mail volumes’. In a more conservative scenario (in the absence of the USO), Royal Mail raises prices on loss-making routes up to break-even level, and consequently sees lower economies of scale. The value of forgone

³⁴ See London Economics (2002), p. 30ff.

³⁵ See London Economics (2002), p. 73ff.

economies of scale, and thus the benefit from maintaining the loss-making routes due to the USO is estimated to GBP 18.5m.³⁶

Demand analysis

London Economics has examined the potential demand side benefits of maintaining loss-making routes. To do this, London Economics has estimated a demand function for mail products in order to assess own price and cross-price elasticities and identify substitutability and complementarity effects across USO products of Royal Mail.

The identified complementarities among mail products imply that sales of some loss-making USO products may result in increased sales of other profit making USO products. It is also possible that there is an impact on sales of profit making non-USO products and even non-mail products, but due to data unavailability the study was unable to confirm this. Result of estimating benefits of complementarities: GBP 0.93m due to cross product demand effects among USO products; GBP 3.5m corresponding to an overall estimate of benefit due to demand complementarities between USO and non-USO products.³⁷

VAT exemption

In the UK, the total VAT bill payable by a given company can be computed as 17.5% of the total revenues minus the 17.5% of VAT included in the price of VAT-able inputs. Based on the review of Royal Mail's most recent annual reports, only 39% of total costs corresponded to VAT-able input costs. The remainder of the costs correspond to value added in terms of capital and labour. Since Royal Mail is currently exempt from VAT it is also not able to claim back from the inland revenue VAT paid on inputs.

In the absence of VAT, profits can be expressed by subtracting costs referring to inputs that pay VAT and costs referring to inputs that are value-added by Royal Mail from total revenues.

If Royal Mail becomes subject to VAT, the profit is lowered as, firstly, the total revenues are lowered by the fact that Royal Mail would not be able to split the burden of VAT in total to its customers (as the prices are subject to regulation, the regulator would likely not allow an increase of price in full amount of 17.5%). On the other hand, the profit is increased as the costs from inputs that are subject to VAT will go down, since Royal Mail will now be in a position to claim back the VAT paid on inputs, against its total VAT bill. A benefit for Royal Mail will therefore only result if the second effect (reduced costs from inputs that are subject to VAT) overcompensates the first one (reduced revenues due to impossibility of transferring the VAT burden in total to the customers).

³⁶ See London Economics (2002), p. 97ff.

³⁷ See London Economics (2002), p. 130ff.

By comparing the two scenarios (with and without VAT exemption), and assuming that a) the inputs that are VAT-able represent 39% of total input costs and b) total costs are identical to total revenues, London Economics estimates a benefit from the VAT exemption by assuming different cases of transferring the tax to Royal Mail's customers in case of obligation to pay VAT:

- a) Royal Mail is able to transfer only 5% of the VAT burden to its customers (resulting benefit: GBP 391m)
- b) Royal Mail is able to transfer 8.5% of the burden (thus the half of the burden) to its customers (resulting benefit: GBP 133m)
- c) In case the regulator does not allow any (gross) price increase after removal of VAT exemption, Royal Mail would have to take the full taxation burden. Hence, the benefit of VAT exemption would amount to GBP 736m.³⁸ In this case, Royal Mail would have to pay the full VAT out of its current revenues.

Copenhagen Economics (2008)

Post Danmark receives an income from stamps sold but not used at a given time (prepaid stamps). For this income, Post Danmark does not have to perform the service that the customers have paid for. Post Danmark estimates this income to DKK 100m,³⁹ thus representing an interest-free loan. In addition, some of these stamps will never be used because they are lost or are purchased by stamp collectors. Copenhagen Economics estimates the value of income from unused stamps for three sub-sections of this topic:⁴⁰

- a) For the interest effect of the prepaid stamps, Copenhagen Economics suggest that Post Danmark's capital costs are 8% (based on consultancy studies estimating the capital costs of Deutsche Post to 7% and of Royal Mail to 8.7%). This result in a profit of DKK 8m.
- b) A part of the stamps are purchased by stamp collectors, never using the stamps. Denmark has more than 200,000 philatelists (stamp collectors). Assuming that they buy stamps for DKK 20 per year on average, this will give Post Danmark a profit of DKK 4m.
- c) Some of the stamps will be lost and thus never used. The volume of sold stamps of Post Danmark amounts to DKK 1.1bn per year. Assuming that 2% of these stamps are lost, this would result in a profit of approx. DKK 20 million.

³⁸ See London Economics (2002), p. 160ff.

³⁹ See Post Danmark (2006), p. 68.

⁴⁰ See Copenhagen Economics (2008), p. 80f.

BDO/WIK-Consult (2007)

BDO/WIK-Consult make a rough estimation of Swiss Post's benefit from being exempted of paying profit tax (with respect to USO products). The base is the reported profit from reserved and non-reserved services (2006). The avoided profit tax is roughly estimated by means of the rate for direct government taxes and the rate for canton and community taxes.⁴¹

2.2 Intangible benefits in the electronic communications sector**2.2.1 Identification and characterisation**

In the electronic communications (then still telecommunications) sector, the discussion of possible benefits that are due to the provision of universal service started at the same time, in the mid-1990s, at which the issue of the compensation of the net cost of the USO itself arose. As in the postal sector, it is the benefits of the incumbent operator as the universal service provider which has been the focus of the discussion. The approach to determining these benefits, however, was from the beginning different from the one followed in the present study. Instead of starting with looking at all and any benefits that an incumbent USO provider might enjoy and then zeroing in onto those possibly due to the universal service, that discussion restricted itself from the beginning to the identification of those benefits that would naturally come to mind as being due to it. The question may be asked whether some relevant benefit may not have been overlooked as a result of this.

The first noted study on the cost and funding of universal service that also addressed the question of benefits is Analysys (1995) carried out for Oftel. This study arrived at the following list of benefits:

- Corporate reputation,
- Marketing and brand recognition,
- Information on how consumers use the telephone,
- Customer life cycles, and
- Ubiquity of service.

In the same section that treated benefits, the Analysys study also listed three so-called adverse effects if the incumbent actually withdraw services from certain areas. The

⁴¹ See BDO/WIK-Consult (2007), p. 40.

avoidance of such adverse effects was presumably considered to be equivalent to a benefit. These adverse effects to be avoided were

- Unwanted side effects,
- Disconnection costs, and
- Additional planning costs.

These effects were, however, disregarded by Oftel (1997) in its eventual determination regarding the cost of universal service and were also not taken into consideration by any later study or any determination undertaken by a regulatory authority. Furthermore, Oftel made two changes; it added the category “advertising benefit of public pay phones” and it consolidated “corporate reputation” and “marketing and brand recognition” into one category as both conceptually and empirically it is difficult to effectively keep these two benefits apart.

The study by WIK (1997) for the European Commission listed the following – what it called “indirect” – benefits:

- Life cycle effects,
- Enhancement of corporate reputation,
- Effects of increased ubiquity,
- Access to full range of telephone usage data, and
- Advertising benefit of public pay phones.

This list subsumes under “enhancement of corporate reputation” the brand loyalty effect and thus is essentially the same as the one originally presented by Oftel.

WIK dubbed these benefits “indirect” because they are not immediately identifiable in the USO providers’ performance and cost accounts as related to the universal service. Additionally, they are typically not included in the revenues obtained from providing these services when that company presents a calculation of the net cost of the universal service. Underlying this classification of *direct net costs* and *indirect benefits* is the fact that any direct benefits (revenues from providing the USO) are netted out in determining the direct net costs, and that there are no indirect costs.

The designation of the relevant benefits as “intangible” came into use with the EU Directive 97/33/EC of 30 June 1997. EU Directive 2002/22/EC also refers to intangible benefits as market or indirect benefits which should be evaluated in monetary terms and be deducted from the direct net cost of the USO. Mostly, however, EU documents in respect of both the electronic communications and the postal services continue to refer to these benefits as intangible. We believe that the term “intangible” is misleading insofar as any of the benefits in question, when realised, would be tangible in the sense

that they lead to a better financial performance.⁴² As far as the term “market benefit” is concerned we have the impression that it is used synonymously with “intangible”. The view expressed here is by the way consistent with the language used by Oftel (and later by Ofcom) who has consistently referred to “benefits” of the universal service without any further qualification. The distinction that was drawn in WIK (1997) in terms of “direct” net costs and “indirect” benefits derives from practicability considerations and draws attention to the fact that, as pointed out, the benefits in questions cannot directly be observed and need extra effort and investigation to determine their values.

2.2.2 Importance

The five benefits identified above differ according to their importance. As we will see below, values have been determined that vary substantially between the different benefits and for the same benefits across different countries. Below we summarise the assessment in terms of importance provided by WIK (1997) and comment on how important they have been considered in regulatory proceedings since then:

- *Enhancement of corporate reputation:* WIK considered the benefit from USO provider status in terms of corporate reputation a quite important. If there is no other indicator, one should use—as a measure of the benefit—a percentage of the USO provider's advertising and marketing budget (Oftel used at the time a 20 % share of British Telecom's corresponding expenditure) or a share of the turnover of the USO provider (the 20 % of British Telecom's advertising and marketing budget corresponded to 0.65 % of its turnover). For regulatory authorities the better approach would be to initiate consumer research in order to measure directly to what degree customers extend a greater loyalty to the USO provider, and what commercial benefit the latter derives from this greater loyalty. This has, to some extent, been followed in regulatory proceedings. The effect has generally been found to be substantial.
- *Advertising benefit of public pay phones:* Public pay phones that are uneconomic create an advertising effect that would be foregone if these pay phones were withdrawn. Depending on the number of pay phones that are withdrawn, the effect may be more or less important. Whenever in regulatory proceedings this effect was taken into consideration, the resulting benefit turned out to be substantial.
- *Life cycle effects:* The assessment starts from the assumption that uneconomic areas are the primary source of the direct net cost of universal service, i.e. areas that are connected to the telecommunications network although they do not generate sufficient revenues to cover costs. The expectation is, however, that when life cycle

⁴² The designation may be due to an association with intangible assets. Enjoying a greater customer loyalty than one's competitors may be considered an intangible asset. It leads, however, to benefits that are quite tangible, i.e. larger turnover and bigger profits.

effects are taken into account and future revenues and costs are included on a net-present-value basis, a substantial share of these areas should be expected to be classified as economic. WIK concurred with this assessment and classified the effect as substantial. With one exception, however, regulatory assessments have found this benefit to be relatively small.

- *Effects of increased ubiquity:* WIK argued that the quite substantial benefit of ubiquity must in the case of the incumbent network operator be attributed to its status as a large, well-established, market dominant national operator. If this operator no longer served uneconomic areas the effect would not change very much. Accordingly, benefits from ubiquity should not be regarded as important. In fact, regulatory proceedings, with one exception, have not found a substantial benefit due to this effect.
- *Access to full range of telephone usage data:* As in the case of ubiquity, the benefit is predominantly related to the fact that the incumbent network operator is a large, market dominant, national player. This would not change very much if the incumbent withdrew service from uneconomic areas and customers or reduced the number of pay phones. Therefore, WIK argued that this benefit should not be regarded as important. In later regulatory determinations, this benefit has become the larger category “use of customer data base”. This category also includes the commercial use of the underlying address data base e.g. selling addresses to other companies for marketing purposes (mailings). In this definition, the importance of this benefit would be greater as, for example, also the data of subscribers in uneconomic areas may be of interest for advertising purposes.

Table 1 shows how the various benefits were evaluated by the regulatory authorities in four countries of the European Union.

The table shows that in all four countries corporate reputation turns out to be the most important benefit, although the level in terms of the percentage of the cost of universal service varies substantially. The advertising benefit – when it is taken into account – comes second; in the one exception (France) this effect was apparently not included in the evaluation. Life cycle effects and ubiquity are shown to be positive and substantial only in one case (Belgium) while the use of the data base, mainly due to the commercial use of addresses for mailings, are considered to generate substantial benefits in two cases (Italy and Belgium).

Table 1 The relative importance of benefits from the USO in 4 EU countries

	UK	France	Italy	Belgium
	% of the cost of universal service			
Corporate reputation	81.0	42.8	50.0	13.2
Advertising	15.9		10.1	3.9*
Life cycle effects	0.8	0.0	0.0	7.2
Use of data base		0.2	5.5**	7.2**
Ubiquity	0.0	0.2	0.0	2.7

* Includes effect of advertising in directories.

** Includes use of addresses for mailings.

Source: WIK-Consult, and. AGCOM (2007), ARCEP (2007), IBPT (2005) and Ofcom (2005, 2006).

2.3 Conclusions of literature review

The review on literature shows that there are only a few references dealing with benefits due to the universal service obligation in the postal sector, and that there is no literature that specifically addresses the role of intangible benefits for the type of USO net cost calculations required by the Third Postal Directive.

The six benefits that were most discussed, and quantified by some studies are:

- Demand complementarities;
- Economies of scale and scope;
- Enhancement of corporate reputation/brand value;
- Enhanced advertising effect;
- VAT exemption;
- Interest profits due to prepaid postage (quantifiable but not subject to extensive discussions);

A number of additional benefits were discussed by some studies for the postal sector, but were not quantified:

- Ubiquity;
- Corporate reputation;
- Low transaction costs due to uniform tariffs;
- Customer life cycle effects;

- Better bargaining position with regulator/politicians/workforce;
- Privileged access to the philately market;
- Strategic advantage for funding predation and expansion;
- Recipient database.

Finally, the reviewed literature mentions benefits related to legal privileges resulting from national laws or regulations in some countries:

- Parking/stopping exemptions;
- Exemptions from customs and excise legislation;
- Ownership of post office boxes.

In order to enhance the list of potential benefits, WIK-Consult conducted a survey of authorised postal operators active in the French postal market. In total, 19 operators were contacted by e-mail, and asked to suggest 'important benefits La Poste enjoys as being the designated universal service provider'. Responses to this survey suggest that the following benefits identified by the literature review are indeed relevant in France: (i) demand complementarities; (ii) economies of scale/scope; (iii) enhancement of corporate reputation/brand value; (iv) parking/stopping fines and practices; (v) ownership of post office boxes. Additional benefits suggested by licensed operators included La Poste's exemption from transport licences, possible state subsidies (current and planned), the 'logistical typology', privileged access to terminal dues of foreign postal operators, La Poste's detailed knowledge about the market, and La Poste's dominant position .

The reviewed literature does not provide any approaches for classifying benefits into tangible and intangible—as the directive implies to do. A major reason for this may be that the studies were conducted/published before the publication of the Third Postal Directive.

London Economics (2002), as well as Barkatullah/Ramada (2002), distinguish between benefits which can be quantified and benefits which can not be quantified. Copenhagen Economics (2008) divided between "Goodwill advantages" and "Other competitive advantages". BDO/WIK-Consult—specifically dealing with the Swiss postal market—distinguish benefits that are related to universal service provision and privileges (by law/regulation) due to the universal service obligation.

3 Classification of commercial benefits in the postal sector

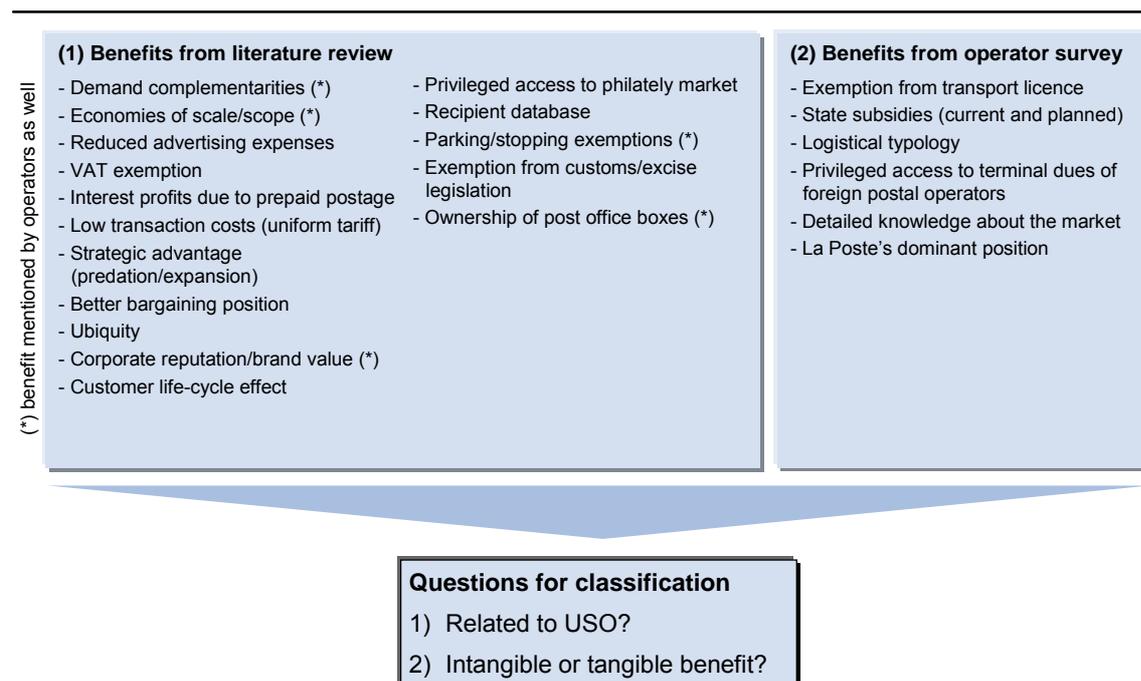
3.1 Introduction

This section aims at classifying potential benefits of the universal service obligation in the postal sector. In a first step, categories for classification are defined (section 3.2). There are two main questions to be discussed:

- a) Is the respective benefit related to the USO?
- b) Is the benefit intangible or tangible?

The figure below summarizes our general methodology, and the potential benefits analysed in this chapter.

Figure 2 List of potential benefits analysed in this study



Source: WIK-Consult.

3.2 Categories for classification

We noted in section 2.2.1 that qualifying benefits due to the USP status as “intangible” is not precise given that all the effects in question – if in fact they are realised – will lead to quite tangible results, i.e. an improvement in the financial position of the operator. We further note that the Postal Directive’s instruction that all “market” benefits should be taken into account does not contribute to classifying these benefits; one should expect that all relevant benefits materialise through the market. In this study we will therefore consider all benefits as “market” or “commercial” benefits.

What are ‘intangible benefits’?

Because the term “intangible” is used by the Postal Directive, and appears to have been widely accepted, we will adopt it in the following, and attempt to give it an empirical and practicable meaning with the following definition:

A benefit is classified as 'intangible' when a universal service provider's performance and cost accounting, and its calculation of the net cost of the universal service obligation, does not (fully) reflect the impact on revenues and cost that result from the existence of this benefit.

The definition is relevant insofar as the identification of such benefits becomes necessary only if they are not already included in the universal service provider’s submission (the USP’s net cost calculation). International experiences suggest that, in most cases, it will be true that the claim for compensation does not take into account the benefits under consideration here. At the margin, there may, however, be areas of overlap. For example as regards the effect on revenues, consideration may in the claimant’s submission not only be given to the forgone revenues from USO services but also the effect on certain other revenue streams that would simultaneously occur, such as the sale of stationary in post offices (that would be closed). To the extent that a benefit was taken into account in the USP’s submission, thereby reducing the amount claimed for compensation, this benefit would not need to be considered in the category of intangible benefits. Obviously, the definition becomes somewhat a moving target, but this is unavoidable given its dependence on what is covered or not in the operator’s submission.

What are ‘benefits related to the USO’?

Our approach for classifying whether or not a benefit is related to the USO addresses two questions:

First, a benefit is related to the USO if it is caused by the additional level of service (‘service delta’) that La Poste provides only because of the USO, but would not provide otherwise. Based on the current state of literature, if La Poste would no longer be

required to provide universal services, we assume that La Poste would likely consider the following reductions of its current service levels:⁴³

- Fewer deliveries per week in those areas where average unit costs for delivery are highest. For example delivery in such areas could be only three times per week, i.e. every second day.
- Less postal outlets (post offices and postal agencies). In particular, La Poste might achieve significant cost savings by contracting postal agencies to replace traditional post offices.

Second, a benefit is related to the USO if it results from a legal right or privilege that is legally related to the provision of universal service, or justified by the USO.

Suggested classification

Given the above preliminaries, we proceed as follows regarding the identification of benefits that the incumbent postal operator has due to its status as the USP and as regards their classification:

- a) All candidates for benefits that have been identified in the literature, or have been pointed out in contributions from interested parties, or have occurred to us based on own previous work, are examined to whether they are in fact genuine benefits. If a candidate can actually not be recognised as a benefit, it is identified as such and classified accordingly.
- b) A benefit once identified is classified as being related or unrelated to the USO. If it is considered unrelated to the USO it is identified as such and classified accordingly.
- c) A benefit found to be related to the USO is classified as either tangible or intangible according to the criterion that we have developed above.
- d) If the benefit is considered tangible it should normally be expected to be included in the submission for compensation by the USP. This will have to be verified by the regulator. If it is not included it should be grouped with the intangible benefits to be assessed and quantified in the corresponding determination by the regulatory authority.

There are further dimensions of classification:

- A benefit would normally result from the very fact of the incumbent operator being the USP. It may, however, also arise through specific legal rights granted by the national government but tied to the USP status. Whatever case applies will be noted.

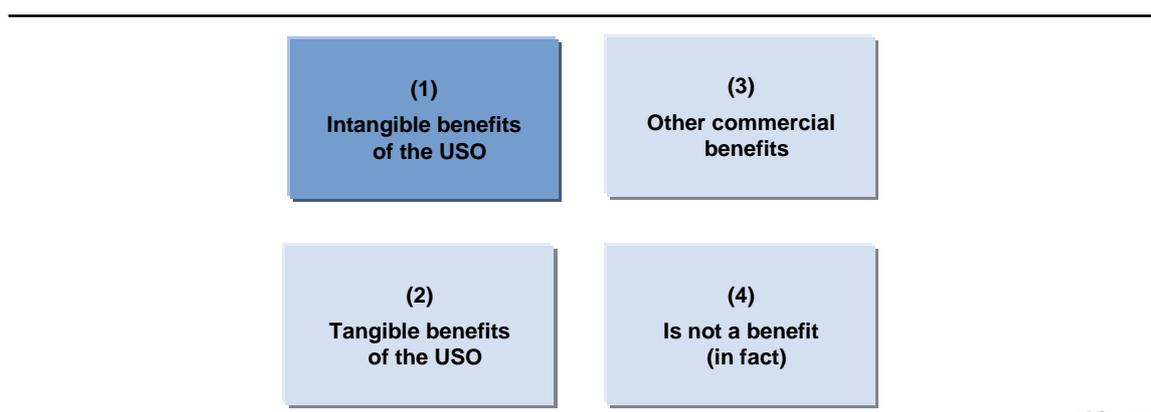
⁴³ Relevant articles and reports on 'counterfactual scenarios' include: Bergum (2008), Copenhagen Economics (2007), and – of delivery frequency -- a recent conference paper by La Poste officials: Borsenberger, Joram, Magre, Roy (2009).

- An effect leading to a benefit may be wholly due to the USO or it may exist independently of the USO but its impact would be enhanced by it. In the latter case, only the additional amount of the benefit should be determined. How to go about this will be taken up in Chapter 4. Here, it will be noted whether a benefit is wholly or only partially to be credited to the USO.
- The last dimension relates to the causal order⁴⁴ of the effect that will eventually lead to the benefit. An effect may be realised “early”, e.g. at the level of demand (on account of an enhanced corporate reputation), or it may be realised “later”, e.g. at the level of production (larger economies of scale). Now the latter will be affected by all quantity changes that have come about at an earlier stage, i.e. beside the quantity narrowly due to the USO itself plus all other quantity effects, e.g. due to the enhanced corporate reputation. From this follows that all such quantity effects will have to be determined before the quantification of economies of scales themselves can be tackled. Therefore, all effects have to be ordered according to where in the operator’s business process they intervene so that it can be traced to what extent they have been affected by earlier effects and to what extent they will affect later effects. This dimension of classification is important in respect of the approach to quantification so that it will be taken up in detail in Chapter 4.

Summary of classification

Based on these considerations each potential benefit will be classified into one of following four categories:

Figure 3 Classification of benefits: categories



Source: WIK-Consult.

⁴⁴ See H. A. Simon, “Causal Ordering and Identifiability”, in: H. A. Simon, “Models of Man”, New York 1961.

3.3 Intangible benefits of the universal service obligation

3.3.1 Economies of scale/scope

Benefit is related to additional USO service level

As outlined in section 3.2 we assume that without the USO La Poste would reduce the delivery frequency in some delivery areas (with high unit cost of delivery). This reduced service level may result in declining delivery volumes. However, the negative volume effect would likely not be very substantial for the following reasons:

- La Poste would still offer delivery services nationwide.
- The share of postal items that needs daily delivery (e.g. newspapers) or day-certain delivery (e.g. weeklies) is limited.
- La Poste would take the needs of publishers and other large mailers into account when selecting the delivery days to be cut in the area under consideration in order to minimize the loss of letter post volume.

Declining letter post volume results first in reduced revenues (direct effect) and second in reduced economies of scale and scope in the collection, sorting, transportation and delivery of postal items (indirect effect). However, the final demand effect depends on the actual scope of the 'service delta': Depending on the share of population affected by the reduced delivery frequency mailers may decide to switch to competing postal operators (if any) or to other communication/advertising channels to reach the recipients. Ideally, La Poste should anticipate the switching behaviour of postal customers in its counterfactual scenario (without USO).

Intangible

This benefit is classified as 'intangible' because we expect that La Poste's performance and cost accounting, and La Poste's net cost calculation does not (fully) reflect changes in cost and revenues resulting from reduced economies of scale and scope.

3.3.2 Enhancement of corporate reputation and brand value

Benefit is related to additional USO service level

La Poste is ubiquitous throughout the country and enjoys a well-established and good reputation in France:

- La Poste traditionally offers nationwide postal and (postal) financial services and operates a dense network of postal outlets (post offices and postal outlets in cooperation with local authorities or other service partners).
- Postal customers perceive La Poste as a good corporate citizen.
- All aspects of the 'Service Public' traditionally play a very important role in France and are cherished by the population.

People trust in postal and financial services provided by La Poste and are very sensitive in changes of service provision. Without the USO, we assume that La Poste would reduce the delivery frequency in areas with high delivery costs (usually in sparsely populated areas). Additionally, we expect that La Poste would reduce the number of postal outlets and possibly increase the share of postal agencies. In the past changes in the organisation or significant changes in service provision generally resulted in extensive public discussions (most recent example: the planned transformation of La Poste into a *société anonyme*).

We expect that particularly changes in the post office network would impair the company's reputation in the public and would affect the demand for USO and non-USO products. Universal service providers in other European countries that have reorganized or plan to reorganize their postal outlets made similar experiences (e.g. Sweden Post, Österreichische Post, Swiss Post).

Intangible

We classify this benefit as intangible because we do not expect that La Poste's performance and costs accounts provide sufficient information to calculate the impact of a reduced service level, and possibly bad publicity, on demand for postal and other services.

3.3.3 Enhanced advertising effect

Benefit is related to additional USO service level

La Poste is visible throughout the country:

- The company operates postal outlets in rural and urban areas.

- Well visible street letter boxes are placed along streets and places.
- Postal vehicles (cars and trucks) transport letters and parcels nationwide and uniformed postmen deliver mail by foot, by motorcycle or by car on six days per week.

Universal postal service provision and visibility of La Poste are two sides of the same coin. Visibility is an essential part of every marketing strategy. Without the USO, we assume that La Poste would reduce the number of post offices. This would reduce the visibility of La Poste and would require additional advertising expenses in order to achieve the same advertising effect that La Poste has at present.

Intangible

We classify this benefit as intangible because we do not expect that La Poste's performance and costs accounts would incorporate this effect.

3.3.4 Better bargaining position

Benefit is related to additional USO service level (in part)

The company provides nationwide financial and postal services and operates a dense network of postal outlets partly in cooperation with local municipalities. Particularly postal outlets play a central role in the view of local politicians. La Poste is fully owned by the state resulting in close relations to national and local politicians. Additionally, La Poste is one of the largest employers in France; most of their employees are unionised.⁴⁵ More than half of their employees are still civil servants.

This bundle of factors results in an advantageous bargaining position of La Poste in political discussions compared to other postal operators. Consequently, La Poste has the opportunity to avoid negative impacts of new legislation and lobby for beneficial legislation more effectively than other postal operators in France.

Intangible

Benefit cannot be achieved by La Poste's performance and cost accounts and is classified as intangible.

This benefits in part relates to the additional services La Poste provides due to the USO. In parts, however, this benefit results from other factors such as the role as a state enterprise, or the fact that La Poste is a very large employer. Therefore, only the

⁴⁵ See <http://www.eurofound.europa.eu/eiro/studies/tn0704018s/fr0704019q.htm> for more information on industrial relations in the French postal sector.

part of the benefits that relates to the USO could be considered for calculating the net cost of the USO.

3.3.5 Privileged access to the philately market

Legal benefit directly related to USO

Article 16 of Loi n°90-568 du 2 juillet 1990 relative à l'organisation du service public de la poste et à France Télécom exclusively authorises La Poste to issue postal stamps. Article L3-3 of the Code des postes et des communications électroniques⁴⁶ (in the following: Postal Code) obliges La Poste to use the mark 'France'. Consequently, only La Poste has the right to issue postal stamps with this mark while competing postal operators have not this right. Usually, philatelists value stamps with the nation's mark higher than stamps without (latter ones are hardly requested by stamp-collectors). Without the USO, we assume La Poste would not be allowed to issue stamps with the mark 'France' which results in less demand for stamps by philatelists and thus reduced profits.

La Poste would likely be able to maintain a profitable philately business even without the right to use "France" on its stamps, but philately sales and profits would likely be smaller in this case. Only the share of philately profits that is attributable to using "France" on stamps should be considered for net cost calculations.

Intangible

The actual demand effect related to the mark 'France' is unknown. We classify this benefit as intangible because we expect that La Poste's cost and performance accounting does not incorporate this effect.

3.3.6 VAT exemption

Legal benefit directly related to USO

The *Contrat de Plan 2008-2012* between La Poste and the French government determines that La Poste's revenues related to postal universal services are exempt from VAT. The standard VAT rate is 19.6% in France. Around 86 percent of La Poste Group's total revenues are subject to the VAT exemption (~ EUR 17.9bn in 2008).⁴⁷

⁴⁶ Article modified by law No. °2005-516 as of 20 May 2005 - Art. 1 JORF 21 May 2005.

⁴⁷ Contrat de Plan 2008-2012, p. 5.

The VAT exemption gives La Poste a competitive advantage over other postal operators that do not benefit from such an exemption particularly with regard to business customers (banking and insurance services, public sector) and consumers that cannot deduct VAT from their bill. La Poste's benefit related to the VAT exemption depends on several factors:

- The share of La Poste's input costs that is VAT-able (typically all expenses that are not related to labour and capital).
- The share of revenues generated by customers and consumers that cannot deduct VAT:
- Demand effects resulting from gross price increases. These effects must be analysed separately for customers that can deduct VAT and those that cannot.
- The extent to which La Poste could carry over the VAT to its customers.

In France, companies that are completely or partly exempt from VAT have to pay 'wage taxes'. Therefore, the benefit from the VAT exemption has to be offset against expenses resulting from this tax.⁴⁸ In 2008 labour costs accounted for around 65 percent of La Poste's total operating expenses, in total EUR 10.3bn⁴⁹. The company paid EUR 566m wage taxes⁵⁰.

Intangible

We classify this benefit as intangible because we do not expect that La Poste's performance and costs accounts provide sufficient information to calculate the effect from the VAT exemption directly.

3.3.7 Exemptions from customs and excise regulations

Legal benefit directly related to USO

Article L6-1 of the Postal Code authorises La Poste "to submit to customs inspection, mail subject to an import ban, liable to duties or taxes collected by the customs service or subject to entry restrictions or formalities, under the conditions laid down by the Universal Postal Union conventions and agreements", as specified in Article 66 of the Customs Code.⁵¹ This simplified and cheap procedure results in time and cost savings for La Poste and improves its competitive position because other postal operators do not benefit from this exemption.

⁴⁸ See Gallet-Ryback et al. (2008), p. 34.

⁴⁹ See La Poste (2008), p. 111 and 120.

⁵⁰ See La Poste (2008), p. 119. Comparing the amount of wage tax to La Poste's total revenues yields a "wage tax rate" of 4.2 percent (wage tax divided by total revenues.)

⁵¹ Code des douanes, consolidated version from 29 May 2009.

Without the USO, if La Poste would not be the designated universal service provider, La Poste would lose this preferential treatment resulting in higher (transaction) costs and time losses in the transport of postal items. This may also reduce cross-border volumes (letters and parcels) because customers may switch volume to competitors.

Intangible

We do not expect that La Poste's performance and cost accounts incorporate this effect and classify the benefit as intangible.

3.3.8 Exemption from transport licence

Legal benefit related to USO

According to Art. 17 No. 8 Decree No. 99-752, La Poste is exempt from transport licence by law.⁵² Every transport company (road haulage) has to deposit a fixed amount of money per vehicle (including motorcycles) as evidence for its financial capacity. They are obliged to deposit at least EUR 900 per vehicle in order to obtain the transport licence. Transport companies cannot use this capital for other purposes; they need additional capital (equity or debts) to carry out their business. This may result in increasing interest payments. La Poste does not have to deposit any capital for its fleet resulting in less capital needs and interest payments. This may also restrict the incentive of La Poste to purchase transport services from third parties (i.e. licensed transport companies).

Intangible

The benefit consists of the avoided cost of capital that La Poste does not have to deposit since it does not need to get a transport licence. This benefit is classified as intangible because it likely cannot be obtained directly from La Poste performance and cost accounts, and we assume this benefit is not included in La Poste's net cost calculation.

⁵² "Transports exécutés par La Poste au moyen de ses véhicules pour ses missions de service public" ; Art. 17 No. 8 Decree No. 99-752 as of 30 August 1999 related to commercial road transport services, version consolidated as of 9 July 2009.

3.4 Tangible benefits of the universal service obligation

3.4.1 Demand complementarities

Benefit related to USO by ‘service delta’

La Poste operates a dense and nationwide network of postal outlets (2.7 outlets per 10,000 inhabitants compared to, for example, 1.5 outlets per 10,000 inhabitants in Germany in 2007).⁵³ Postal outlets, particularly post offices, offer a bundle of services and products beyond universal postal services. These are for example stationary and, particularly, financial services. Without the USO, La Poste would most likely reduce the number of postal outlets resulting in less revenues not only from postal services but also from less sales in other products and financial services.

Tangible

Costs and turnover related to sales in postal outlets should be directly available from La Poste’s performance and cost accounts (assuming that La Poste provides the relevant information).⁵⁴ We therefore assume that lost revenues according to complementarities of demand should already be considered in any net cost calculation ARCEP received from the USP. Therefore, the benefit is classified as tangible.

3.4.2 Press subsidies

Benefit related to USO

According to Article R.1, 2 b), of the Décret no 2007-29 du 5 janvier 2007 relatif au service universel postal et aux droits et obligations de La Poste et modifiant le code des postes et des communications électroniques, the delivery of newspapers and periodicals is part of the universal service obligation. Furthermore, Articles L.4 and R.1-1-17 of the Postal Code oblige La Poste to promote the plurality of the press.

In order to achieve this objective La Poste is granted a compensation determined by “Contrat de plan 2008-2012” and a by a contract between the State, La Poste and publishers’ representatives (l’accord tripartite 2009-2015 du 23 juillet 2008). The

⁵³ See ITA/WIK-Consult (2009), p. 47 and 52.

⁵⁴ La Poste has developed a sophisticated model to estimate the impact on demand for postal and financial services in case of closures of postal outlets (see for example Commission Européene, C(2005) 5412 final du 21 décembre 2005, Aide d’Etat N 531/2005—France, Mesures liées à la création et au fonctionnement de la Banque Postale).

compensation amounts to EUR 242m per year until 2011. It is planned to reduce the compensation step-by-step to EUR 180m in 2015.

Without a USO, La Poste would likely reduce the delivery frequency in some parts of the country. This reduction would infringe the requirements of the Postal Code and of the “Contrat de plan” as well as the contract between the State, La Poste and the publishers. Therefore, La Poste would most likely lose the compensation.

Tangible

The benefit, i.e. the compensation payment, can be obtained from La Poste’s performance and cost accounts. Therefore, the benefit is classified as tangible.

3.5 Other commercial benefits

A bundle of specifics that may result in benefits for La Poste are not considered to be related to the USO. For example, they result from the unique market position and the specific history of La Poste as the incumbent operator that traditionally offers nationwide postal services since centuries.

These commercial benefits can be very important. However, the Postal Directive’s guidelines for calculating the USO net cost do not mention such other benefits, that are not related to the USO clearly.

La Poste would most likely continue to enjoy these advantages even without USO, and therefore they cannot be considered for assessing the USO net costs. However, these other commercial benefits can be considered in assessing whether or not any determined net cost of the USO represents an “unfair financial burden” that warrants financial compensation.

Market dominant position of La Poste

La Poste dominates the French postal market. Particularly, in the letter post market competition has not yet emerged. Substantial economies of scale and scope discourage market entry particularly in the letter post market. Experiences in other European countries have shown that even in fully opened letter post markets incumbent postal operators still remain market-dominant.⁵⁵ One primary reason for this continued dominance is that there is a considerable inertia in postal customers even where these customers have choice. One reason to explain this inertia may be that postage is a relatively small share of total spending for households and businesses alike, and that the transaction costs of creating and preparing mail are generally higher than the

⁵⁵ See for example ITA Consulting/WIK-Consult (2009), p.62 et seq.

postage. Therefore, the reductions in postage offered by alternative postal operators do not appear highly attractive to all customers as they may only save a portion of cost position what itself is not very important to them. In particular, senders of medium size are generally believed to be inert (unwilling to switch postal operators).

This advantage is not directly related to the USO. Without the USO La Poste would have even more freedom to set prices (the company would not be obliged to set geographically uniform tariffs) which may result in even better opportunities to defend its market share, and thus to strengthen its market position.

Strategic advantages (with regard to pricing and acquisition policy)

As a large, market dominant postal operator La Poste may have strategic advantages with regard to pricing and acquisition policy. A high cash flow, for example, may enable La Poste to acquire competitors (as happened in the parcel market where La Poste has acquired a number for foreign carriers).

La Poste provides a large variety of mail products and manages the delivery of in average more than 280 letter items per capita and year (on average).⁵⁶ Therefore, La Poste enjoys considerable economies of scale and scope that provide the possibility to offer lower-priced postal services than competitors. La Poste will as well be more able than its competitors to offer bundles of services or discounts offered for a range of services (e.g. within a framework contract). However, these strategic advantages are not related to the USO. In fact, these advantages result from La Poste's size, history (La Poste as the only postal operator; 'first-mover'-advantage) and market power. La Poste would continue to enjoy these advantages even without the USO.

Detailed knowledge of the market

For historical reasons and due to the market dominant position of La Poste is the by far the largest provider of postal services in France. La Poste has established excellent and close contacts to customers, and has a detailed knowledge of the French mail and parcel market. This, again, is a first-mover advantage that may help La Poste to dominate its competitors. Without the USO, La Poste would still benefit from this market knowledge as the firm still has business relations with virtually all customers in the French market.

Interest profit due to prepaid postage

La Poste has a financial advantage by selling stamps/postage for franking machines that are paid in advance and consumed later. Users of stamps and franking machines therefore allow a transitional, zero interest credit to La Poste. This results in an interest profit for La Poste: La Poste needs less credit from third parties (i.e. saves interest

⁵⁶ See ITA Consulting / WIK-Consult (2009), Annex Country Fiches: France.

payments) or can bank money (i.e. receives additional interest payments). A system of prepaid stamps/postage is not exclusively reserved for the universal service provider but can be applied by all postal operators. The use of this payment channel depends more on the strong market position of La Poste than on the fact that La Poste has to provide the universal service.

Ownership of post office boxes

La Poste operates of a network of post office boxes (and Cedex addresses). Customers can choose to collect their mail from a post office box usually positioned in or near post offices. Delivery of mail in post office boxes is less costly than delivery at the premises of the recipient. Therefore, La Poste saves delivery costs compared to other postal operators.⁵⁷ The operation of post office boxes is not part of the USO but is the result of historical developments. It creates a competitive advantage for La Poste: Duplicating this infrastructure would not be reasonable as recipients would usually not want to have more than one P.O. Box.

Logistical typology

The logistical typology essentially comprises the postal code system that was introduced by La Poste. It is an important part of the postal infrastructure and necessary to smoothly manage the mail flow through the postal value chain. La Poste as the first postal operator with a nationwide delivery system has introduced the postal code system. Of course, it was designed to primarily support the logistical organisation of La Poste's mail flows. The postal code system is well established in the French economy: postal customers are familiar with this system. For this reason other postal operators have to use the same postal code system even if it does not reflect and support their own logistical organisation as well. This results in additional costs for competitors and thus creates a competitive advantage for La Poste.

However, this advantage does not result from the USO but is historically driven and the result of La Poste's efforts to efficiently organise the transport and delivery of postal items: In the past La Poste was the only postal provider and had, therefore, a 'first-mover'-advantage. A postal code system would likely have been established even without the USO.

Parking exemptions

Due to custom and practice, as private operators report, the communes allow La Poste to park without paying any fees or to park at locations that are not normally allowed for parking. While La Poste is usually not sanctioned competing postal operators (particularly parcel companies) have to look for parking areas or to face the risk of

⁵⁷ And possibly generates demand complementarities.

parking fines. This results in time and cost savings and thus in a competitive advantage for La Poste. This benefit is not clearly related to the USO. Even without a USO commune's agents would most likely not sanction La Poste's drivers the same as drivers of other postal operators, due to habits inherited from the former monopoly, that the USO perpetuate but do not justify per se.

Tax abatement

Additional to the USO La Poste is subject to an obligation to support the regional development in less densely populated areas. This obligation is related to the network of post offices operated by La Poste. According to Art. 6 of Loi n°90-568 du 2 juillet 1990 relative à l'organisation du service public de la poste et à France Télécom and results in additional postal outlets compared not necessary to fulfil the USO. La Poste is compensated by a tax abatement that is defined in the 'Contrat de présence postale territoriale 2008/2010 entre l'Etat, l'Association des Maires de France, et le groupe La Poste'. The subsidy for regional planning, resulting from a reduced rate for local taxes on land and buildings, amounts to EUR 140m per year.⁵⁸ If La Poste would not be the designated universal service provider, La Poste would likely reduce the number and density of postal outlets. This may infringe the density requirements of the regional planning obligation. However, the compensation is not related to the postal USO and is therefore not part of its benefits.

Privileged access to terminal dues of foreign postal operators

The two principal international agreements for terminal dues are the UPU convention, and REIMS. At present, only designated operators have access to UPU terminal dues although a few private operators are able to access similar rates by operating ETOEs, extra-territorial offices of exchange. The REIMS II contract was reported to be open to private operators. However, only one private operator (IMX) is using this access to REIMS rates, and negotiating the conditions to access were reportedly very difficult for IMX as well. Another benefit of incumbent operators is that they are in a better bargaining position vis-à-vis other postal operators as they can negotiate rates (terminal dues) for both import and export of mail at the same time. This higher volume will typically mean a stronger position in negotiation compared to alternative cross-border operators that only compete for outbound mail, and thus negotiate import rates only.

While the admission to the UPU systems of terminal dues is limited to designated operators, REIMS is formally not. Therefore, any benefits in this field cannot be related to the USO definitively.

⁵⁸ See Contrat de Plan 2008-2010.

3.6 No benefits in fact

Low transaction costs due to uniform tariffs

Article L.1 of the Postal Code obliges La Poste to apply uniform tariffs on products of the reserved area; the reserved area accounts for a large part of the universal services.

A postal provider may attract more mail volume when applying a uniform tariff. A uniform tariff means that customers have not to be informed about complex pricing models when sending mails to various destinations. Thus, the acceptance of such a pricing model is—especially with respect to private customers—much more higher than the acceptance for a complex, for example geographically differentiating pricing model. Thus, the provider can attract comparably more volume which can result in higher profits.

However, the obligation to apply uniform tariffs cannot be a benefit. Competitors—and universal service providers in other countries—generally apply geographically uniform tariffs although they do not have to. La Poste is very likely to maintain uniform tariffs even without the universal service obligation, at least for single piece items. Thus, there is no benefit from the USO with respect to this topic. If anything, the obligation is a limitation for the provider as the operator cannot apply pricing models which may overcompensate the positive effect of a uniform pricing model.

Customer life-cycle effects

The concept of customer life-cycle effects is relevant in the electronic communications sector. Unprofitable private customers, which are responsible for an important share of total turnover of an electronic communications operator, may later on become profitable customers for the following reasons (see section 2.2 for more details):

- moving from high-costs areas to profitable areas;
- accessing profitable additional services of the provider.

However, the concept does not appear applicable for the postal sector as private customers are responsible only for a marginal share of the total turnover of a postal operator. Therefore, life-cycle effects are not considered relevant for this study.

Recipient database

La Poste as the largest post provider delivers to every household and company in France. Therefore, La Poste is able to generate an address database of recipients all addressed in the territory of France. Without the USO, La Poste would most likely still deliver nationwide. It might only reduce the delivery frequency in high-cost areas. Hence, La Poste would have the ability to generate database likewise.

Ubiquity

La Poste is a nationwide provider of (universal) postal services. Customers can access services nearly everywhere in France. Without the obligation to provide universal services, La Poste would likely reduce the delivery frequency in some high-cost delivery areas and reduce the density of the postal outlet network. However, we assume that the ubiquity of La Poste would not be changed substantially.

Therefore, any benefits related to 'ubiquity' are not relevant for this study.

4 Methodologies for quantifying intangible benefits of the universal service obligation in the postal sector

4.1 General framework

We propose to assess the quantitative impact of intangible benefits on the basis of the following simple model for the profit of the universal service provider:

$$\pi = pv - cv - c_o + \pi_{PM} \quad (1)$$

where

- 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:

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

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

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

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

where

- 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).

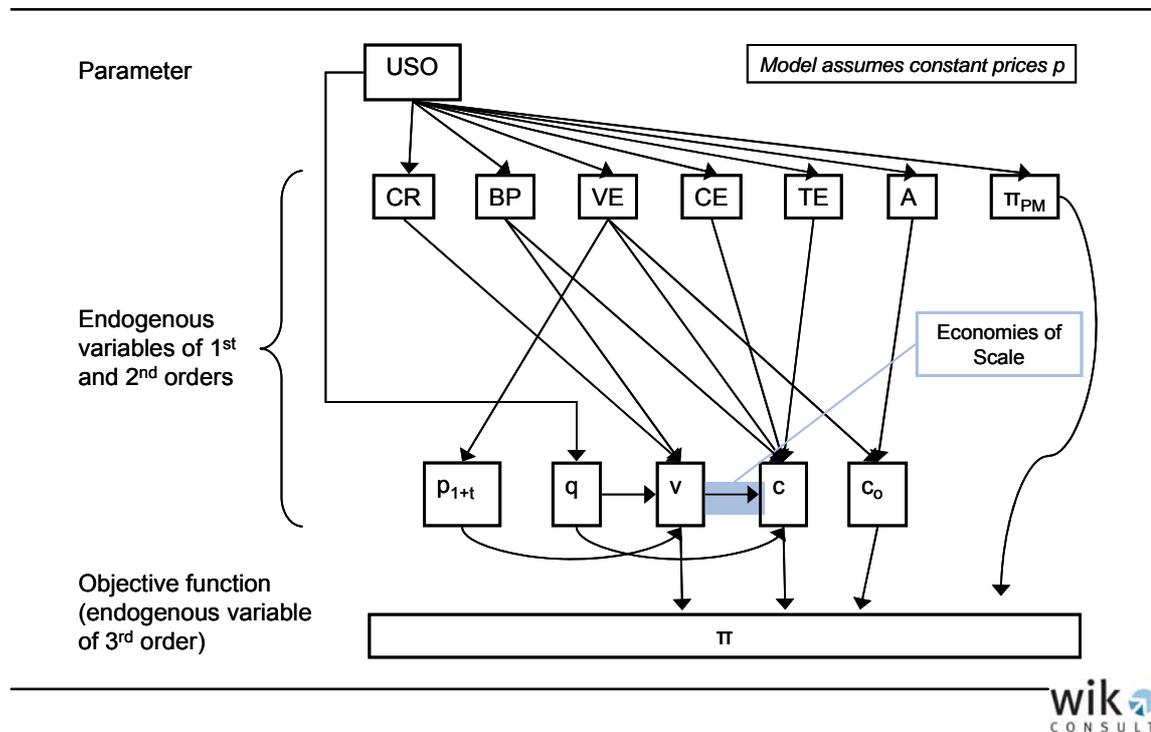
There are various ways in which the influences of the USO status on the profit position of the operator, as expressed by equations (1) through (5), can be made more transparent. First we can look at them in terms of the concept of causal ordering that we introduced in section 3.2. Table 2 lists all variables according to whether they are of 1st order, i.e. immediately influenced by the USO status, of 2nd order, i.e. influenced by the variables of 1st order, or of the 3rd order (the profit position) which is influenced by the variables at the two preceding levels. Figure 4 adds to this by indicating explicitly what variables of the 1st order influence variables of the 2nd order, and how variables of the 1st and 2nd orders influence the variable of the 3rd order, i.e. the profit.

Table 2: Ordering of parameters and variables

Order	Parameter	Endogenous variables
1	USO	CR, BP, VE, CE, TE, A, π_{PM}
2		p_{t+1} , q , v , c , c_o
3		π

Source: WIK-Consult.

Figure 4 Interrelationship between parameters and variables



Source: WIK-Consult

As is apparent from Figure 4, the interrelationships among the variables are relatively straightforward in that at the 2nd order there are relatively few influences that go from one variable of this order to another one of the same order. Interrelationships between variables of the same order go all from left to right and no influence is curving back. This would be different if p , the price retained by the operator (net of VAT), would also be affected by any of the effects shown at the 1st order, for example by the cost of operation c . We assume, however, that p is unaffected by the USO status. We make this assumption essentially for the pragmatic reason that tracing the effects of relevant changes in prices through the operator's business operations would unnecessarily complicate the analysis. As a further justification we note that maintaining the assumption will lead to an underestimation of the total amount of intangible benefits – so this would not be to the detriment to the universal service provider – but that this underestimation can on balance be expected to be relatively small. At the end of this section we will discuss the implications if this assumption is relaxed.

What Figure 4 also makes clear is that the effect through economies of scale and scope is a derivative of those effects that cause changes in total volume, i.e. p_{t+1} , CR , BP and q . Only after we know their effects on total volume can we look at how per-unit cost changes as a consequence of changes in volumes are ultimately brought about by the USO.

To further clarify what is involved in determining the quantitative impact on the operator's profit of its status as USP, it will be helpful to make use of the mathematical language of total differentiation. With this language it is possible to show how each effect expresses itself through the above functional relationships to affect the level of profit.⁵⁹ This approach is realised in equation (6) below. Before examining it, the following aspects need to be noted.

- The sign of the value of the endogenous variable of the equation, i.e. the differential $d\pi$, depends on which of the following two perspectives is taken:
 - The USO does not exist, i.e. the various terms show the impact of adding the USO to the counterfactual situation without it. This leads to the situation that actually exists today. In this case $dUSO$ is considered a positive event, and the impact on $d\pi$ of the effects of interest is also positive; or
 - The USO does exist, i.e. the various terms show the impact of withdrawing the USO from the actually existing situation, leading to the counterfactual situation without the USO. In this case $dUSO$ is considered a negative event, and the impact on $d\pi$ of the effects of interest is also negative.

When analysing the various terms of the equation below from a conceptual point of view, both perspectives may be taken. For the discussion in the following section about measuring these effects, the second perspective must be taken when data and information are needed for these measurements which are only available for the actual situation.

- The various terms on the right side of the equation are ordered such that each of the 9 lines corresponds to one of the effects of interest (including for completeness' sake the direct net cost of the USO). For each line, the particular effect is named in the margin at the right. A term $\partial y/\partial x$ – where y can be any of the variables defined in Figure 4 and x can be any of these variables or the parameter USO – indicates the change in y due to a given change in x .

The equation is as follows:

$$d\pi = \left[(p - c) \frac{\partial v}{\partial q} - v \frac{\partial c}{\partial q} \right] \frac{\partial q}{\partial USO} dUSO \quad \text{line 1} \quad \text{Net cost of the USO (narrow)} \quad (6)$$

$$+ (p - c) \frac{\partial v}{\partial CR} \frac{\partial CR}{\partial USO} dUSO \quad \text{line 2} \quad \text{CR}$$

⁵⁹ There is no intention here to claim that the equations (2) through (5) in the text are functions that are continuous and could in fact be differentiated; this is definitely not the case. The purpose of using the language of total differentiation is purely expositional.

$$\begin{aligned}
& + \left[(p-c) \frac{\partial v}{\partial BP} - v \frac{\partial c}{\partial BP} \right] \frac{\partial BP}{\partial USO} dUSO && \text{line 3} && \text{BP} \\
& + \left\{ (p-c) \frac{\partial v}{\partial p_{1+t}} \frac{\partial p_{1+t}}{\partial VE} - \left(v \frac{\partial c}{\partial VE} + \frac{\partial c_o}{\partial VE} \right) \right\} \frac{\partial VE}{\partial USO} dUSO && \text{line 4} && \text{VE} \\
& - v \frac{\partial c}{\partial CE} \frac{\partial CE}{\partial USO} dUSO && \text{line 5} && \text{CE} \\
& - v \frac{\partial c}{\partial TE} \frac{\partial TE}{\partial USO} dUSO && \text{line 6} && \text{TE} \\
& - \frac{\partial c_o}{\partial A} \frac{\partial A}{\partial USO} dUSO && \text{line 7} && \text{A} \\
& + \frac{\partial \pi_{PM}}{\partial USO} dUSO && \text{line 8} && \text{PM} \\
& - v \frac{\partial c}{\partial v} \left(\frac{\partial v}{\partial q} \frac{\partial q}{\partial USO} + \frac{\partial v}{\partial CR} \frac{\partial CR}{\partial USO} + \frac{\partial v}{\partial BP} \frac{\partial BP}{\partial USO} + \frac{\partial v}{\partial p_{1+t}} \frac{\partial p_{1+t}}{\partial VE} \frac{\partial VE}{\partial USO} \right) dUSO && \text{line 9} && \text{Economies} \\
& && && \text{of scale}
\end{aligned}$$

Each of the lines of equation (6) are commented on below:

- Line 1: This is the direct net cost effect of the universal service which is included for completeness' sake. The change is driven by the increase in scope of service, represented by q (quality), brought about by the USO, i.e. $\partial q/\partial USO$. The increase in q brings about an increase in the cost per unit of production, shown as $\partial c/\partial q$, which is multiplied by v to obtain the total effect. The corresponding negative effect on profit is counterbalanced in part by the extra volume demanded brought about by the positive change in quality, $\partial v/\partial q$, multiplied by the margin on profit, $(p-c)$. Note — this holds for all lines — that whether there is a universal service obligation or not is a 0-1 change, i.e. $dUSO = 1$.
- Line 2: The increase in corporate reputation due to the USO, $\partial CR/\partial USO$, brings about additional demand, $\partial v/\partial CR$, which is multiplied by the margin on this extra volume, $(p-c)$.
- Line 3: The increase in bargaining position due to the USO, $\partial BP/\partial USO$, brings about additional demand, $\partial v/\partial BP$, which is multiplied by the margin on this extra volume, $(p-c)$. In addition, the increased bargaining position means a decrease in per unit cost, $\partial c/\partial BP$, which is multiplied by total volume v . This last term is positive, because the better bargaining position will lead to reduced cost.

- Line 4: The VAT exemption, $\partial VE/\partial USO$, makes itself felt on cost through two channels, i.e. impact on per unit cost, $\partial c/\partial VE$, which is multiplied by total volume, v , and impact on overhead cost, i.e. $\partial c_o/\partial VE$. It is not clear whether $\partial c/\partial VE$ and $\partial c_o/\partial VE$ will on balance be negative, and therefore these impacts of VE on profit be positive, or whether, because of the wage tax that goes along with VE in France, they might on balance be positive, and have a negative effect on profit. Further, the VAT exemption means a lower gross price, $\partial p_{1+t}/\partial VE$, which has a positive effect on volume demanded, $\partial v/\partial p_{1+t}$, which effect is multiplied by the profit margin, $(p-c)$. Note that the VAT exemption is a 0-1 change, i.e. $\partial VE/\partial USO = 1$.
- Line 5: The customs regulation exemption, $\partial CE/\partial USO$, brings about a change in the cost per unit, $\partial c/\partial CE$, which is multiplied by the total volume, v . As in the case of VAT, this exemption is a 0-1 change, i.e. $\partial CE/\partial USO = 1$.
- Line 6: The exemption from the transport license requirement, $\partial TE/\partial USO$, brings about a change in the cost per unit, $\partial c/\partial CE$, which is multiplied by the total volume, v . As in the case of VAT, this exemption is a 0-1 change, i.e. $\partial TE/\partial USO = 1$.
- Line 7: The increased presence on the territory through more post offices, causes an advertising effect, $\partial A/\partial USO$, which in turn will cause a reduction in advertising expenditure, $\partial c_o/\partial A$.
- Line 8: The use of the national symbol on the stamps sold to collectors by the incumbent operator makes these more attractive as collector items and gives the incumbent operator an advantage vis-à-vis other players in the philately market. This should lead to higher market share in this lucrative market and thus to higher profits, expressed through $\partial \pi_{PM}/\partial USO$.
- Line 9: Economies of scale make themselves felt through a decrease in the per-unit cost of production brought about by an increase in volume, $\partial c/\partial v$, which is multiplied by total volume, v , to obtain the overall decrease in the cost of production. There are a number of channels through which volume increases occur, i.e. through the increase in quality, $\partial v/\partial q$, the increase in corporate reputation, i.e. $\partial v/\partial CR$, the increase in bargaining position, $\partial v/\partial BP$, finally the decrease in gross prices due to the VAT exemption, $(\partial v/\partial p_{1+t})(\partial p_{1+t}/\partial VE)$. Each of these terms is multiplied by the effects that the USO has on the volume determining variables, i.e. $\partial q/\partial USO$, $\partial CR/\partial USO$, $\partial BP/\partial USO$ and $\partial VE/\partial USO$.

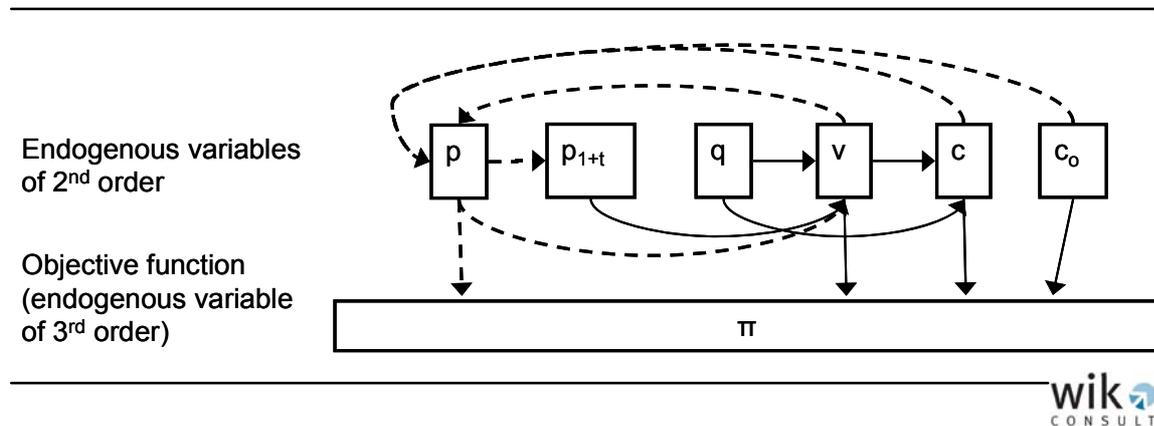
In the following section we will discuss how the effects leading to benefits can be quantified. As shown by equations (1) through (6), the initial effects have to work themselves through the business operations before they translate into a changed financial position. If the regulatory authority when making such an assessment has a bottom-up cost model available, the impact of most of the effects could be determined — each individually or in all sum — through such a model (the exception would be the

effect through the philately market and probably the advertising effect). The specification of the cost model would require as givens the quantities to be produced and the input prices. Outputs of the model would be the quantities of the various inputs used (manpower, post-office buildings, vehicles, advertising, etc.) and the costs in total as well as per unit of output. Since the relevant effects due to the USO all affect either demand, i.e. quantities produced, or costs of inputs, the quantitative effects, once determined as discussed further below, can thus be introduced as exogenous changes of the levels of the corresponding parameters in the cost model. For example, the exemption from the transport licence requirement would translate into a lower cost per vehicle used as an input, the enhanced corporate reputation would translate into an increased level of demand and therefore quantity of output, and so on. In addition, to determine the profit for a particular simulation carried out, the price of output, net of the VAT, would be needed, which as we argued earlier, should be considered as uninfluenced by the USO.

If a cost model is not available, the needed information, such as the profit margin per unit ($p-c$) or the number of vehicles to which the savings through the exemption from the transport license requirement applies, would have to be obtained from the cost accounting records of the operator. Most of the information could certainly also be obtained via this route. The advantage of a cost model would, however, be that it would greatly facilitate the determination of the benefit through additional economies of scale (see section 4.2.8).

In the last paragraphs of this section we return to the assumption that with the USO net prices p remain constant relative to the case where there is no USO. We stated above that assuming that p also changes would unnecessarily complicate the analysis, further that it would lead to a higher estimate of the total benefit from the USO so that maintaining the assumption for the sake of practicability is not to the detriment of the USP. Figure 5 replicates from Figure 4 what we called the variables of the second order — this time with net price p added — and the variable of the third order (the profit). The solid arrows linking these variables are those from Figure 4, and the broken arrows are those that have to be added as the p becomes an endogenous variable. There are broken arrows from the cost variables c and c_0 to p , since the lower costs due to the customs regulation and transport licence exemptions would also allow lower prices, and vice versa in respect of the VAT exemption as this does not allow deducting the VAT paid on own purchases. Further there is also an arrow from p to p_{1+t} as obviously the price net of VAT also influences the price including VAT. More importantly, broken arrows now run both from p to v and at the same time from v to p , reflecting the fact that prices and volumes influence each other reciprocally — as we know always happens when companies have market power and use this power to set prices optimally from their point of view. We would also obviously have an influence running from p to profits. The simultaneity in the determination of p and v accounts for the added complexity since an empirical assessment of this effect would require to solve an optimal price setting problem.

Figure 5 Interrelationship between parameters and variables when the price variable p is endogenous



Source: WIK-Consult

Now, assuming that p remains constant is tantamount to assuming that the USP would not adjust prices in response to the new situation (from either perspective, i.e. where the USO is imposed or, alternatively, where the USO is discontinued) although by doing so it would necessarily improve its position. It is a generally accepted result of economic analysis that if there is an exogenous change in circumstances — and decisions by the government regarding the USO is certainly such a change — prices that stay the same as in the ex ante situation could not be the best relative to the new situation. So the assumption amounts to neglecting the part of the benefit that the USP would reap by adjusting its prices optimally as in a given situation it certainly would do.

4.2 Proposals for quantification

In this section we will discuss the empirical approaches with which to fill the terms in equation (6) with actual numbers. The emphasis will be on finding for each benefit an approach that for all the terms defining it (see lines 2 through 9 of equation (6)) would be able to estimate the quantitative effects. We will find that the available approaches are more promising for some and less so for others. Since we are only discussing the types of approaches that offer themselves, and since some of them were ably employed in the studies discussed in chapter 2, we will have occasion to refer to these in the following.

One important proviso of any quantification exercise of benefits due to the USO would be the description of what exactly the extra USO performance consists of, for example the number of extra days of mail delivery per week or the extra number of post offices. From this would have to be derived a number of intermediate variables that would be needed to quantify the benefit. We will assume in the following that such a description is

provided. It should in any case follow from the incumbent operator's submission for compensation of the net cost that according to its calculation it has incurred because of the USO.

4.2.1 Enhanced corporate reputation and brand value

This benefit corresponds to line 2 of equation (6) as repeated below:

$$+ (p - c) \frac{\partial v}{\partial CR} \frac{\partial CR}{\partial USO} dUSO$$

Being the USP is generally well reputed so that for this reason one should expect the USP to gain an enhancement of its corporate reputation. As we have seen in section 2 in the summary of the discussion on benefits in the electronic communications sector, the effect from enhanced corporation appears there to be the most important one. The size would depend on the number of customers that would honour the USO function with additional loyalty in the face of advantageous offers from competitors. In the postal sector, it is the loyalty of business customers which is valued the most as they account by far for the largest share of business. There is anecdotal evidence that also business customers are prepared to give extra credit to the incumbent operator for being the USP, as this would be regarded as an extra sign of reliability and high quality of service. Other considerations might cast doubt on such an assessment, since companies tend to use the service provider that has proven itself in terms of concrete quality dimensions like frequency of delivery and measured level of reliability. There may in fact be an overlap between the effect addressed here, i.e. the good will derived from corporate reputation which is caused by the USO, and the perception of high quality due to the USO which would lead rather directly to higher demand. This latter effect may actually already be taken into account by the universal service provider when it makes its submission for compensation of the net cost of the USO. The approach used for the quantification of the corporate reputation effect would thus have to make sure that the effects on demand that depend directly on higher quality are separated out.

A reliable quantification of the relevant effect can in our view only be obtained through a representative and well-designed survey among customers, i.e. primarily companies that depend for their operations on postal services. The survey questions would have to be formulated in a way that they elicit answers that could be used to determine what extra quantity of services these customers demand from the universal service provider due to its USO status. It takes a particular approach to plan and design such a survey. One approach that has a certain track record and has support in the economics literature is the one of 'contingent valuation'. We would consider it the approach most likely to provide reliable results. In an excursus following this section we give an overview over this methodology as well as some references to the relevant literature.

We note that London Economics (2002) had a consumer survey carried out in the UK of which we do not know, however, what particular methodology was used. Although the content of the universal service presented in this survey is different from the one considered relevant in the present report, it is nevertheless of interest that the survey shows a substantial positive effect on demand and profits due to the UK postal operator's status of universal service provider.

A simpler, yet much cruder approach than a survey would be to use information from the universal service provider's advertising budget and compare this with the actual public awareness of its brand. If this awareness were higher than could be explained by the investments into advertising the obvious deduction would be that this difference is due to the USO status of the operator. This approach is, however, a more indirect one and could not easily be used to derive from it information regarding actual changes in volumes demanded. London Economics (2002) also considers this approach but eventually opts to base its conclusions on results from the consumer survey. A further, more rudimentary approach would be to consult marketing experts to what extent in their view the enhanced reputation will lead to increased demand.

In general, a result in terms of larger volumes – instead of directly in terms of higher profit – would have the advantage of fitting into the general framework presented in section 4.1. It would in particular also provide information that is needed to determine the effect of greater economies of scales due to the USO.

Excursus: Contingent valuation as an approach for determining the willingness of customers to extend more business to the universal service provider

The method of contingent valuation (CV) was devised to determine how the public values goods and services that are not traded in the marketplace. It uses survey questions to elicit respondents' willingness-to-pay for such goods and services. The approach made its first appearance in the economics literature in the early 1960s, and in the 1980s it became known to a larger audience as the methodology to value environmental resources that were destroyed due to some calamity. In a now classic treatise Mitchell and Carson (1989) reviewed a large number of studies using CV to determine willingness-to-pay. They showed that the approach had already been applied to a wide range of goods and services with so-called non-use or passive-use value, i.e. goods and services that the persons surveyed will probably never use but value anyhow. The list included:

- Scenic amenities,
- Goose hunting rights,
- Hiking in wilderness areas,

- Air quality,
- Water quality at beaches,
- Congestion in skiing areas,
- Emergency medical treatment,
- Reducing mortality risk from nuclear power,
- Television programming,
- Drinking water risks,
- Control of toxic waste dumps.

A cursory review of more recent studies using the approach extends this list showing for example as further areas of applicability:

- Preschool education,
- Applying for carrying out the Olympics in 2012 by the city of London,
- Prevention of child obesity,
- Cultural goods.

All of the areas listed are related to goods with non-use value which are not traded and regarding which there exists some interest in knowing the public's valuation (in terms of willingness-to-pay). Given that universal service in the postal sector, beyond what the postal operator would provide anyhow, is considered a service with a non-use value for a large fraction of the public whose valuation – as in above cases – is not directly observable in the market place, the approach appears to be relevant in the current context as well. The objective in the appropriate exercise would be somewhat different from the typical goal of determining a willingness-to-pay as it would be to determine the willingness to extend a higher esteem to the company that provides the service instead of the state who would otherwise have to provide and/or pay for it. Essentially, however, the same kind of response would be sought, i.e. the willingness to make a costly decision – for example, preferring the services of the universal service provider beyond the scope purely dictated by business considerations – in favour of a company that provides a valued service where the value is not associated with actual use, or even the option to use it.

Contingent valuation has met some criticism. In the wake of the litigation surrounding the 1989 Exxon Valdez disaster, a number of studies were carried out with the objective of assessing the accuracy and usefulness of CV studies. This led to the appointment by the US government of an expert panel (that included Nobel-Prize laureates Kenneth Arrow and Robert Solow) which was charged with studying whether CV methods can provide reliable information about non-use values. The panel concluded that CV

methods can generate useful information (Arrow et al., 1993) and issued a number of recommendations to maximize the reliability of CV estimates. These are listed below after having been adjusted (where appropriate) to reflect the objective of this report:

- a. Use of a probability sample;
- b. Using face-to-face or telephone interviews but not mail surveys;
- c. Pretesting of the CV questionnaire;
- d. Phrasing CV questions in the form of hypothetical referenda in which respondents – assumed to be business people deciding on the volume of their use of postal services – are confronted with concrete alternatives in respect of their purchasing decisions, i.e. in terms of how much more business they actually give to the universal service provider, and are then asked to cast a simple yes or no vote for one of the alternatives;
- e. Providing a “would not vote” option in addition to the “yes” and “no” vote options on the referendum;
- f. Breaking down willingness-to-engage-in by a variety of respondent characteristics such as total volume of postal services demanded by the business, respondents’ assessment of the value of corporate reputation, attitudes towards corporate culture, etc.;
- g. Reminding respondents of their actual budget constraint regarding their purchase of postal services when considering their willingness to pay.

The above list is useful in allowing a first intuitive assessment of CV as a non-market valuation methodology but has been criticised to be not precise enough. References to specific guides to carrying out CV surveys include Champ et al. (2003), here in particular Boyle (2003), and Alberini and Kahn (2005).

4.2.2 Better bargaining position

This benefit corresponds to line 3 of equation (6) as repeated below:

$$+ \left[(p - c) \frac{\partial v}{\partial BP} - v \frac{\partial c}{\partial BP} \right] \frac{\partial BP}{\partial USO} dUSO$$

This benefit appears as the most neglected one in the discussion of benefits due to the USO. Of the studies reviewed in chapter 2, Postcomm (2001) and London Economics (2002) mention the effect only cursorily, and there is no attempt of quantifying it. Yet it may well be the most important one of them all.

It is generally recognised that companies attempt to influence national economic policy in their favour. They do this on their own efforts and through the activities of their trade

associations. The areas in which this influence is exercised range from labour legislation to foreign trade policy to competition policy to regulation as well as to many others. Large companies are known to engage substantial resources for these lobbying activities. The incumbent postal operator has with its status of universal service provider a particularly valuable resource available to it for this purpose. In France, this status gives La Poste a role in the politics of “aménagement du territoire” (akin to regional planning), a status which in the public eye is highly appreciated and which not only assures it privileged access to the government, to politicians and to the unions, but also very often means an automatic sympathetic hearing of its concerns.⁶⁰ This gives it an enhanced bargaining position whenever issues are at stake in proceedings that could positively or negatively impact on the success of the organisation.

Traditionally, incumbent postal operators have very close ties with all levels of politics. In particular, their strong local presence is an important argument in dealing with local politics. For example, mayors that appreciate the local presence of La Poste may be less likely to send the mail volume produced by the municipality by alternative carriers, and in considering their votes in national Parliament, Members of Parliament are usually very conscious of the role La Poste plays in their constituency.

The incumbent operator will use this better bargaining position wherever it suits its interests. It is, however, most likely that it will bring to bear this influence most effectively in the areas of market position and costs, as illustrated below:

- Incumbent postal service providers have significant market power stemming from their former position as monopolist. They will endeavour to maintain this market position by attempting to hinder or soften any measures that would enable competitors to make inroads into their markets and threaten this position.
- Similarly, they will try to prevent or soften any measures that would tend to diminish the total size of the market.
- Postal incumbent will try to prevent or soften any measures that would increase their costs. Examples of success in respect of La Poste may be the circumstance that it continues to enjoy exemptions from certain levies and regulations that its competitors do not have.
- As regards relations with the unions, the role of universal service provider makes that the incumbent operator is a larger employer than it would otherwise be. So whenever there are difficult negotiations about wages and work conditions, the fact that it is

⁶⁰ The following comment of a practicing lobbyist is testimony to the value that this privilege may amount to: “In cases like these - which, I feel, are the majority of cases - the whole point of lobbying is to convince legislators and their staffers to *care*. So, a huge expenditure of lobby resources is not spent simply on asking for a yes on this bill or a no on this other bill, but rather it is spent on just making people understand your cause - convincing them of its essential logic or fairness.” It is clear that La Poste, and probably the universal service provider in many other countries, would not have to spend that money and be able to influence decisions anyhow. With the large employment of an incumbent postal operators, and a post office in every constituency, postal policy automatically is a priority issue.

engaging in these unprofitable activities entailing larger numbers of employed persons will give it a leverage that it would not have otherwise.

- Although the unions and the incumbent operator are natural adversaries in the areas of employment, wages and work conditions, in respect of the company's continuing dominance on the market, the two are allies. This support will be the stronger the more the incumbent operator continues to engage in universal service activities. It should be noted in this context, however, that the unions may make this kind of support dependent on concessions in the other areas so that it may in part counteract the effect mentioned under the preceding bullet. This would mean that employees of the operator would be beneficiaries of the USO as well.

The above influences will on balance mean higher volumes and to some extent lower costs than would otherwise be the case. To the extent that this influence leads to higher costs this would benefit employees of the operator who in a certain sense may actually be considered to belong to the sphere of the operator.

As concerns the quantification of the benefit, methods with which this could be accomplished appear not to be readily available. There exist studies that for certain areas of lobbying activities estimate the rate of return earned on the expenditures for these activities.⁶¹ However, these studies are typically able to use statistical material that would not be available for the present case. This material consists of actual amounts of cash resources spent on lobbying as well as of subsequent changes in company returns for a large number of companies. In the case of a universal service provider, first, the relevant resource, i.e. "provision of universal service" is not immediately comparable to actual amounts of cash spent, and, second, one would have observations only on this one operator's universal service activities which would probably not be information-rich enough to filter out the effect of changes in their level on financial results. Also, given the general framework discussed in section 4.1, one would ideally wish to know the effect on volumes and on cost requiring an even more sophisticated methodological approach.

From the above follows that an effort to obtain a robust measure of the effect of the improved bargaining position on operations and financial results, if certainly not per se hopeless, would require a substantial research effort which it may not be justified to recommend for the present purpose. As in the case of corporate reputation, it may be possible to obtain assessments of the relevant effects from experts knowledgeable in the area of lobbying activities and their effectiveness. If the corresponding benefit could be expressed globally as an improvement of the financial position, this would already be informative. It would, however, be preferable to have detailed assessments regarding the impacts on volumes demanded and/or costs incurred so that these could be used in

⁶¹ See for example Alexander/Scholz/Mazza (2009). Their findings are that the rate of return earned on lobbying expenditures can be quite substantial.

a cost model or be combined with actual data from the cost accounting records of the operator, as discussed above regarding the effect due to corporate reputation.

More generally, above discussion can be seen within the larger context of rent-seeking. A good definition of this activity is as follows:

Rent seeking occurs when an individual, organization or firm seeks to earn income by capturing economic rent through manipulation or exploitation of the economic environment, rather than by earning profits through economic transactions and the production of added wealth.⁶²

Such activities do not create any benefit for society, they just redistribute resources from taxpayers or consumers to the special-interest group. The subject is important in the literature on public choice, which is a branch of economics. A good introduction into the subject is Tullock (2005). Examples of rent-seeking are companies lobbying the government for loan subsidies, grants, tariff protection or monopoly status. The activities listed under the bullets above clearly fall into this category. The interest of public choice analysis lies primarily in determining the costs to society of such activity. The impression from this literature is that still much work needs to be done in order to be able to precisely quantify these costs. The consensus, however, is that they are huge, from which for the present purposes the important conclusion follows that the benefits to individuals, firms or organisations engaged in rent seeking activity are comparably big.

It is probably true that all companies and organisations are prone to rent-seeking when the opportunity for this arises so that in this respect the postal operator is in principle not different from other firms and organisations. There is, however, a huge quantitative difference when the postal operator is a public enterprise and in particular enjoys the status of universal service provider which confers on it a much greater ability to bring its influence on government to bear.

4.2.3 Enhanced advertising effect

This benefit corresponds to line 7 of equation (6) as repeated below:

$$-\frac{\partial c_o}{\partial A} \frac{\partial A}{\partial USO} dUSO$$

The advertising effect comes about through the greater visibility of the universal service provider because, as the case may be, there are more post office buildings and more mail boxes around and/or because postal vehicles and mailmen are seen on the roads

⁶² This non-technical definition is quoted from www.en.wikipedia.org/rent_seeking, last viewed on 30 November 2009.

and in the neighbourhoods more frequently. Each of these advertising channels would be showing the logo of the universal service provider and thus producing an advertising effect.

The determination of the value of this advertising effect appears to be relatively straightforward. The reason for this is, first, that the effect is brought about by entities that are countable. There is no question that the carriers of the logo mentioned above are countable in physical numbers, and this would in particular also be true for the differences in their numbers and the frequency of their appearances due to providing universal service. Thus, as a first step, it is necessary to know the differences in the numbers of post offices and mail boxes as well as the differences in the periods of times which vehicles and mailmen would be seen moving around, due to the USO. The corresponding information could be obtained either from the universal service provider's submission for compensation, from a cost model, or from information specifically requested from the operator.

The second reason for the relative straightforwardness of determining the value of this effect lies in the fact that for each of the advertising carrying entities there exist similar commercial offerings that have a market price. Providers of advertising space on buildings and structures as well as on vehicles (trucks, taxis, etc.) can readily be identified just by looking up the internet.⁶³ We expect that a consulting firm with expertise in the field would have little difficulty in establishing for each of the entities mentioned above (post office buildings, mail boxes, postal vehicles and mailmen) a value that corresponds to the market price for a similar commercial offering. London Economics (2002) reports the results of such an assessment, and from their description it also follows that the task appears to be relatively uncomplicated.

4.2.4 Privileged access to the philately market

This benefit corresponds to line 8 of equation (6) as repeated below:

$$+ \frac{\partial \pi_{PM}}{\partial USO} dUSO$$

The niche market of philately services is considered as highly profitable. For example, Swiss Post reports a profit margin (EBIT/revenue) of 37 percent for its philately business. La Poste's does not publish information on revenues from philately services, but come other European incumbents do. For those operators, the share of philately in total revenues is roughly around one percent.⁶⁴ We assume that basic financial

⁶³ In France, this kind of advertising is known as "publicité extérieure". For this search word Google found more than 50,000 matches.

⁶⁴ For 2008, Belgian La Poste reported philately revenues of EUR 40m, about 1.8 percent of total revenues. And Posta Italiana posted philately revenues of EUR 166m, about 1.7 percent of total

information on La Poste's philately business is available from the firm's cost and performance accounts.

The philately business is only related loosely to core postal operations. While identical stamps are sold to users of mail and to collectors likewise, collectors generally do not use the postal services included in the price of a stamp. Traditionally, stamps issued by the incumbent operators were the only choice for collectors. Even though some private operators equally issue stamps, these stamps are demanded much less by collectors. One reason for the privileged position of incumbents in the philately market is the fact that incumbents are exclusively authorised to use national symbols on their stamps (for legal reference, see section 3.3.5 above).

As La Poste would be able to maintain a philately business if there was not USO, not all profits La Poste earns with philatelic services can be attributed to the USO. We argue that the exclusive right to use national symbols enhances the size and profitability of La Poste's philately business, and that La Poste would not have this exclusive right without its USO. The influence of the USO on the profits of La Poste's philately business therefore is considered as the additional demand for philatelic products that results from the exclusive right to use national symbols. It is unclear to what extent these symbol in fact influence sales of philately, and we are not aware of any research on this precise subject.

In order to assess the impact of the USO, and the right to use national symbols, on the philately business of La Poste, we recommend to survey stamp collectors and retailers for philatelic stamps. The survey questions should aim to identify by how much La Poste's sales of philatelic stamps would decrease if La Poste was no longer allowed to use national symbols on stamps, and would no longer be designated as the USP. As a pragmatic approach, we recommend to estimate the USO's contribution to total demand for philatelic services based on a survey of collectors and philatelic retailers.

For the purposes of quantifying this benefit, it appears overly complicated to determine the cost attributed to different philatelic products. Therefore, the value of the privileged access to the philately market could be calculated as the additional philately revenues due to the usages of national symbols, minus a average profit margin for philately services.

4.2.5 VAT exemption

This benefit corresponds to line 4 of equation (6) as repeated below:

revenues. For Swiss Post, philately revenues in 2007 were 0.5 percent of total revenues (SFR 46m). See annual reports.

$$+ \left\{ (p - c) \frac{\partial v}{\partial p_{1+t}} \frac{\partial p_{1+t}}{\partial VE} - \left(v \frac{\partial c}{\partial VE} + \frac{\partial c_o}{\partial VE} \right) \right\} \frac{\partial VE}{\partial USO} dUSO$$

The VAT exemption is widely considered as major benefit of postal incumbents, and a key barrier to entry for new entrants, in most European postal markets. In France, universal services offered by La Poste are exempt from VAT. However, this benefit is likely less important as it is tied to an additional wage tax that only companies have to pay that are not subject to VAT. Therefore, the assessment of the VAT exemption in France can only be informed by international experience to some extent.

As line 4 of equation (6) makes clear, the exemption from value added tax influences La Poste's profit position in several ways:

Demand effects: Most business customers have to charge VAT on their products or services, and they can deduct VAT paid on their input purchases from their own VAT bill. For the buying decision of those customers, VAT is irrelevant as long as the net price does not change. The VAT exemption does not affect demand from these customers. Customers that do not charge VAT on products or services they sell, cannot re-claim the VAT they pay on postage. In addition to private consumers, some large customer groups in the postal sector cannot re-claim VAT. Examples of important postal customers cannot re-claim VAT include banks and insurances, government institutions and charities. In the UK, the share of mail volume from such customers is estimated to approximately 50 percent.⁶⁵ For those customers, the VAT exemption means lower (gross) prices. At constant gross prices, these customers will demand more postal services if they are exempted from VAT. The left hand side of line 6 in equation (6) shows the positive demand effect of the VAT exemption on the USP's profit position. As a VAT exemption is introduced, the tax rate t becomes zero, and prices faced by customers decrease (p_{1+t}). Therefore, the volume effect dv/dp_{1+t} is positive and profits rise by the product of the volume effect and the profit margin ($p-c$).

Cost effects: The immediate influence of the VAT exemption is that La Poste cannot re-claim the VAT included in its inputs purchases on the other hand. This effect is relevant for both volume dependent operational costs (c) and for overhead costs (c_o).⁶⁶ In France, companies that are completely or partly exempt from VAT have to pay wage taxes. As the VAT exemption is introduced, this wage tax adds to the cost of La Poste (c and c_o). The right hand side of line 6 in equation (6) shows the cost effect of the VAT exemption (and the wage tax) on profit. Prima facie, it is not clear whether the combined effect of wage taxes and the VAT exemption on profits is positive or negative. In an input to this study (telephone interview), La Poste has argued that the VAT exemption

⁶⁵ Vgl. Postcomm (2004), S. 43.

⁶⁶ For Royal Mail, and Deutsche Post, consultant reports estimated the share of VAT-able inputs in total operational cost to values between 30 and 40 percent. See WIK-Consult (2005) and London Economics (2002).

would, overall, be a disadvantage, but has not provided quantitative information on this matter.

The amount of VAT that La Poste does not have to pay due to the tax exemption should be estimated for the (lower) level of sales in the situation where postal service are subject to VAT. We suggest that net prices (without VAT) be kept constant to avoid complexity, and ensure consistency with the approach for calculating net costs and benefits more generally. This simplification appears tolerable since we expect that the cost effect of the VAT exemption is not very significant. In light of La Poste's strong market position, it seems conceivable that La Poste is be able to carry over the VAT entirely on its customer. Note that normal business customers would not be affected by this increase in gross prices. Important input data needed to assess the benefit of the VAT exemption on profits include the share of demand that from non VAT-able customers and the price elasticity of those customers. We expect that most other input data should be available from La Poste's cost and performance accounts.

4.2.6 Exemptions from customs and excise regulations

This benefit corresponds to line 5 of equation (6) as repeated below:

$$-v \frac{\partial c}{\partial CE} \frac{\partial CE}{\partial USO} dUSO$$

The Universal Postal Convention provides simplified customs documentation for use by universal service providers and exempts them from liability under national customs laws.⁶⁷ By contrast, other postal operators that are not designated as universal service providers must abide by standard customs documentation for letters and parcels, and are liable for the customs declarations of the senders of the parcels they carry. If La Poste was no longer designated as a universal service provider, it would have to lose this privileged customs regulation.

We see two distinct benefits of La Poste's current exemptions from normal customs regulation:

First, if La Poste could no longer use simplified customs clearance for cross-border shipments, it would have to establish procedures for clearing these shipments according to normal customs regulation. The cost of these procedures could be assessed by requesting benchmark information from parcel operators that do not use simplified UPU documentation, e.g. as cost of customs clearance per shipment. The

⁶⁷ Article 18 of the Universal Postal Convention (2004); Council Regulation (EEC) No 2913/92 of 12 October 1992 establishing the Community Customs Code, OJ L 302, 19 Oct 1992 as amended, Article 38(4); and Commission Regulation (EEC) No 2454/93 of 2 July 1993 laying down provisions for the implementation of Council Regulation (EEC) No 2913/92, OJ L 253, 11 Oct 1993 as amended, Articles 237 and 238.

difference between the per-unit cost of customs documentation and clearance of La Poste and private (non-USO) operators could be interpreted as the benefit of the universal service obligation. The total value of this benefit would be the additional per-unit cost multiplied by the number of cross-border shipments.

Second, La Poste is currently exempt from liability for incorrect customs declarations made by the senders of the items it carries. Where the senders' declarations are incorrect, non-USO operators have to pay customs, and any fines that result from incorrect declarations. Again, the average cost of customs and fines could be assessed by requesting benchmark information from parcel operators, and can be interpreted as the benefit of the exemption from liability.

In addition to being a benefit for La Poste, the unequal customs treatment of different postal operator causes distortions in the market for cross-border mail and parcel shipments. Even though this market segment was first opened to competition in Europe, there is, regrettably, little authoritative public information on cross border markets, e.g. on volumes, prices, competition, customer preferences, and obstacles to competition. In addition, regulation of cross-border markets is relatively underdeveloped and inadequate in all EU member states.⁶⁸ Therefore, more transparency in these markets would certainly be useful.

4.2.7 Exemption from transport licence

This benefit corresponds to line 6 of equation (6) as repeated below:

$$-v \frac{\partial c}{\partial TE} \frac{\partial TE}{\partial USO} dUSO$$

La Poste is currently exempt from the general transport licence, and we assume this exemption would be withdrawn if La Poste would not longer be designated as a universal service provider. In order to obtain a transport license, every transport company (road haulage) has to deposit a fixed amount of money per vehicle (including motorcycles).⁶⁹ This deposit is fixed at EUR 900 per vehicle. Without the USO, La Poste would have to apply for transport licenses and deposit the amount per vehicle.

The total amount that La Poste would have to deposit can be calculated by multiplying the number of vehicles that La Poste uses by the deposit per vehicle (EUR 900). The value of this benefit can then be calculated by multiplying the total deposit by La Poste's cost of capital. For example, if La Poste operated 60.000 vehicles, and its cost of capital was 8 percent, the total benefits would be EUR 4.32m.

⁶⁸ See WIK-Consult (2009), p. 97ff and p. 166.

⁶⁹ Legal reference: See footnote 52.

4.2.8 Economies of scale

This benefit corresponds to line 9 of equation (6) as repeated below:

$$-v \frac{\partial c}{\partial v} \left(\frac{\partial v}{\partial q} \frac{\partial q}{\partial USO} + \frac{\partial v}{\partial CR} \frac{\partial CR}{\partial USO} + \frac{\partial v}{\partial BP} \frac{\partial BP}{\partial USO} + \frac{\partial v}{\partial p_{1+t}} \frac{\partial p_{1+t}}{\partial VE} \frac{\partial VE}{\partial USO} \right) dUSO$$

The discussions in the preceding sections have shown that due to the effects via improved quality, corporate reputation, bargaining position, and the VAT exemption, the USO will lead to an increase in output which in turn will have an effect on the economies of scale and therefore the cost per unit of output.⁷⁰ It would be relatively straight-forward to determine this effect on the basis of a cost model. For any given configuration of values for the other parameters, the model would determine costs once for the output without and once with the additional quantity due to the USO. The standard result from each of the two runs would be the per-unit cost of service, where the per-unit-cost from the run with the higher volume would be expected to be the lower one. The difference between the two per-unit cost figures would be multiplied with the volume of service, where the higher volume should be used, and thus determine the benefit due to economies of scale.

Now, the preceding paragraph presupposes the existence of a properly specified cost model that would truly reflect the impacts of economies of scale on costs at the various stages of the production process when volumes delivered change. If such a cost model is not available, one will have to rely on econometric studies that establish the parameters that would determine the per-unit cost savings due to varying magnitudes of changes in volume. Using these results, the applicable per-unit cost savings could then be determined based on the differences in volumes that are due to the USO. These per-unit cost savings in turn must be multiplied with the volumes of activities at the various production stages to determine the overall savings. There exist a number of studies that determine the elasticities with which per-unit costs vary in response to variations in volume the results of which could be used. Otherwise an own study may have to be commissioned to determine these quantity/cost relationships. The important point here is that the identification or determination of these elasticities is not necessarily the main task. This information can be gleaned from existing studies and, if necessary, from a study especially initiated for the purpose which would probably not cause any great practical problems. The most important aspect is the determination of the difference in volume that is due to the USO as we have discussed in the preceding sections.

⁷⁰ In the first place, of course, the marginal volume effect that results from the USO needs to be assessed. This volume effect clearly depends of the counterfactual scenario, i.e. it depends on what the incumbent would do if there was no USO. It appears that for several products, in particular for press products volumes would be lower if there was no daily delivery in all regions. These volumes effects will likely not be clearly identifiable in the USP's regulatory accounts.

There is one aspect which needs further consideration. This aspect has to do with the direct effect on the per-unit cost of the USO which must not be confused with the effect on per-unit cost due to economies of scale. We have identified the scope of the USO to consist of quality dimensions, in particular delivery of mail every work day and a relatively high density of post offices. The assumption is that without the USO the incumbent operator would, *ceteris paribus*, provide the same volume of services, in particular deliver mail at any location although less frequently as before. The absence of universal service would thus constitute a lower quality, it would not constitute a lower volume of service in the sense, for example, that certain routes are not served. This lower quality would presumably imply a substantially lower level of cost which would be the motivation for the incumbent operator not to provide this kind of service. In contrast, the per-unit cost decreases due to economies of scale discussed above are to be assessed on the basis of a given quality and are brought about by the changes in volumes demanded that in turn occur through the various channels as shown in lines 1 through 4 of equation 6.

5 Conclusions

According to the Third Postal Directive (2008/6/EC), potential net costs of the universal service obligation could justify payment of compensation to designated universal service providers. Any compensation must be supported by transparent calculations of this net cost, and the calculation must take into account “any *intangible* and market benefits”. The specific objective of this study is to identify and classify such intangible benefits, and to establish methodologies for quantifying these benefits.

There is some literature on benefits of the USO in the postal sector generally, and some more literature on such benefits in the electronic communications sector. However, there is no common understanding about the precise meaning of the terms “intangible benefit” and “market benefits”, and there are no attempts for such a classification in the literature to date.

In order to make the terms of the Third Postal Directive operational, this report proposes three categories for classifying benefits of universal service providers:

- (i) intangible benefits of the USO;
- (ii) tangible benefits of the USO; and
- (iii) other commercial benefits (not clearly related to the USO).

According to our classification, a benefit is related to the USO if it is either caused by the additional level of service that La Poste provides only because of the USO, but would not provide otherwise; or if it results from a legal right or privilege that is legally related to the provision of universal service, or justified by the USO.

We consider a benefit as intangible if this benefit is not included or taken account of in the USP’s submission that documents a net cost, and the impact of this benefit on costs and revenues of the USP cannot be evaluated clearly from the documentation. Obviously, this definition becomes somewhat a moving target. However, we are convinced this is unavoidable, and that there is no conceptually straightforward interpretation of what a “intangible benefit” is. In the last consequence, all relevant benefits lead to tangible results and have an impact of profits.

According to the terms of reference of this study, this report concentrates on intangible benefits of the USO. However, for ARCEP (as for all regulators that implement the Postal Directive) all commercial benefits related to the universal services, both tangible and intangible benefits, should be relevant in assessing the net cost of the universal service obligation. This report classifies all those types of benefits.

This report identifies eight benefits that we have classified as intangible benefits of the USO. These benefits are:

- Economies of scale/scope;
- Enhancement of corporate reputation and brand value;
- Enhanced advertising effect;
- Better bargaining position;
- Privileged access to the philately market;
- VAT exemption;
- Exemptions from customs and excise regulations;
- Exemption from transport licence.

Based on current information available for this report, we conclude that the three most important benefits are: (i) Better bargaining position; (ii) Enhancement of corporate reputation and brand value; and (iii) Economies of scale/scope. By contrast, the other five benefits will likely have less important magnitudes.

For any regulatory decision, a final classification of the relevant benefits must be made once a net cost calculation has been submitted by the USP for review. Our classification is based on our expectations of what would be included in La Poste's submission. Therefore, if a certain benefit is already included in the net cost calculation, there is no need for a separate quantification of this benefit. Similarly, if La Poste's submission failed to address other benefits we have classified as "intangible", they should be analysed and quantified separately by ARCEP.

In quantifying different benefits of the universal service obligation, particular care must be taken to avoid that effects are accounted for several times. This report transparently discusses the interrelations between the eight benefits and other model variables. Based on this framework, the report discusses and proposes approaches for quantifying each of the eight intangible benefits.

Finally, we point out that incumbent operators in the postal sector enjoy other commercial benefits that are not clearly related to the USO. For example, such benefits result from the unique market position and the specific history of La Poste as the incumbent operator that have been offering nationwide postal services for centuries, i.e. from its first-mover advantage. La Poste would most likely continue to enjoy these advantages if there was not universal service obligation, and therefore they cannot be considered for assessing the USO net costs. However, these other commercial benefits can be very important, and may be considered by ARCEP in assessing whether or not a USO net cost represents an "unfair financial burden" that warrants financial compensation.

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