

# **Regulation and the burden of the net cost resulting from Universal Service Obligations**

**Christian Jaag  
Urs Trinkner  
Topias Uotila**

**Swiss Economics Working Paper 0042**

**April 2014**

**ISSN 1664-333X**

Published as:

„Regulation and the burden of the net cost resulting from Universal Service Obligations“ (2014). In: The Role Of Postal Service in A Digital Age. Crew, M.A. and Brennan, T.J. (eds.), Edward Elgar, pp. 227–239.

**Swiss Economics SE AG  
Stampfenbachstrasse 142  
CH-8006 Zürich**

**T: +41 (0)44 500 56 20**

**F: +41 (0)44 500 56 21**

**office@swiss-economics.ch**

## 1. INTRODUCTION

The financing of a universal service obligation (USO) in the postal sector has traditionally relied on granting the provider a reserved area. Full liberalization has created the need for alternative funding mechanisms. This has increased the interest of regulators and the public in estimating the (net) cost of the USO as the universal service provider (USP) should be correctly compensated for its burden. While there is quite a comprehensive literature on the cost of the universal service obligation (USO) in light of a different business strategy in the hypothetical scenario without USO, there has been little discussion so far on the assumptions to be made about the regulatory environment in this hypothetical scenario. That is the focus of this paper. In addition, the paper argues that a careful assessment of the regulatory environment may be useful in assessing the burden resulting from the USO.

In Europe, the costing and financing of the USO is laid out in the Third Postal Directive 2008/6/EG. Article 7 states that only the net cost of the USO that constitutes an unfair financial burden should be subject to compensation. It does not further define what is regarded as unfair, but imposes criteria on compensation such as objectivity, transparency, non-discrimination, proportionality, least distortion, or neutrality.

The European Committee for Postal Regulation (CERP 2008, p. 20) argues that the net cost is not regarded as an unfair burden if the situation with the USO is close to a scenario without the USO (i.e., if the USO does not impose many restrictions on the USP) and if the current services offered exceed the requirements of the USO, which may imply that the requirements are not binding at all. The net cost (measured by the difference in an operator's profit without and with USO) results from the differences in the operator's and the customers' behavior in both scenarios. Hence, the unfairness is related to the amount of the net cost. Therefore, the CERP guidelines may serve as rules of thumb for situations where the calculation most likely would not provide a substantial net cost. The European Regulators Group for Postal Services (ERGP 2012, p. 43) proposes various criteria and factors that could be analyzed by a national regulatory authority (NRA) to assess whether the net cost represents an unfair burden. These include the verifiable direct net cost; financial position of USP; electronic substitution; cost of and revenue from universal services, market shares, and other criteria set by the NRA.

Most of these criteria are related to the financial position of the USP and somewhat inconsistent. They seem to be related to either (i) the absolute value of net cost of the USO or (ii) the acceptability of the burden in relation to the USP's revenue, profit, or market share. In the first case it is unclear why there is a difference between the net cost and the unfair burden. In the second

case, a burden is fair if it is proportionate relative to the USP's financial situation. Both cases lack further dimensions of fairness that are indicated in the Third Postal Directive, such as non-discrimination or neutrality. Hence, they do not account for the effect the USO has on competing operators.

Frontier Economics (2013) presents an overview of which measure of the net cost of the USO is a possible unfair financial burden. Boldron et al. (2009) argue that to determine the unfairness of a USO burden, it is necessary to consider different criteria, depending on the specific national situation. Jaag (2011a) studies the competitive effects of various notions of what an unfair burden might be. He suggests that one notion of unfairness may imply that universal service provision imposes an unfair burden if the USP's profit is lower than its competitors' or if it reduces the USP's profit compared to a situation without USO by more (in absolute or relative terms) than the competitors' profits are reduced from changes in regulation (e.g. contributions to USO funding). More generally, changes in profit are directly borne by the operators' owner, which is often the state in the case of USPs. Changes in the competitive equilibrium may also affect other stakeholders, e.g. by their effect on wages, prices and taxes. Therefore, a broader notion of unfairness may take into account the effect of the USO and other regulation on all affected parties.

Jaag (2011a) argues that the choice of a fairness criterion is to be based on equity rather than on efficiency considerations. In general, any criterion results in a different distribution of burdens across taxpayers, customers, and ratepayers. The choice of one among the others is therefore to be oriented on the goals to be achieved. It also depends on the available financing mechanism: Compensating the net cost with external funds may require that the USP be losing money, because the political process might find it difficult to subsidize a profitable USP. If competitors have to contribute to the funding of the USO, changes in their profit should be considered, too.

In the remainder of this paper, we develop a comprehensive framework to analyze the role of the regulatory environment in calculating the net cost of the USO and in determining appropriate compensation, which we call the "Regulatory Delta" concept. Section 2 derives the concept while Section 3 provides examples. Based on this concept, Section 4 describes fundamental trade-offs in consistent regulation of the postal sector and compensation for the USP as well as potential solutions. Section 5 concludes.

## **2. REGULATORY DELTA CONCEPT**

The calculated net cost and the amount of its burden which is shared with other operators determine the appropriate compensation for the USP. This section develops the Regulatory Delta concept and assesses its compatibility with the Third Postal Directive. As opposed to ERGP or

the criteria proposed by Jaag (2011a), the Regulatory Delta concept is not based on the outcome (i.e. the USP's profit) but at the assumptions behind the calculation of the net cost of the USO. It thereby follows Jaag (2011b), who argues that the calculation of the USO net cost needs a full characterization of the actual and counterfactual regulatory framework as a prerequisite.

According to the profitability cost method that is established in the Third Postal Directive, the net cost of the USO is calculated as the difference between a universal service provider's net profits of operating with the USO (actual situation) and without the USO (counterfactual scenario). The burden of the USO depends on the regulatory framework in which the USP and its competitors operate, both in the actual situation and in the counterfactual scenario. This is at the heart of the Regulatory Delta concept. For example, the burden of the USO will be lower if one must assume that in the counterfactual scenario, licensing conditions are to be met that are of similar nature as the USO itself. Similarly, competition law may limit the monopoly rents and pricing flexibility in a similar way as USO constraints on affordability, and hence the USO may result in a low burden because it does not represent an additional restriction. The Regulatory Delta concept hence considers the difference in regulations in the scenario with and without the USO, including the effect of other regulation, e.g. whether having a USO makes the USP more susceptible to competition law or other legal restrictions: Appropriate compensation for the USP depends on the regulatory framework in which the USP and its competitors operate – both in the actual situation with USO and in the counterfactual scenario without USO.

The Regulatory Delta concept starts from the presumption that there are basically three kinds of regulation affecting operators in the postal sector: First, general (non-sector-specific) regulation potentially applies to all firms in the economy (e.g. competition law applies to all dominant firms, irrespective of the sector in which they operate), independently of the existence of a USO, keeping in mind the above point that conditions in the imposition of the USO could lead the USP to be dominant and thus vulnerable to relevant competition law. Second, sector-specific regulation applies to all operators in the postal sector (e.g. regulated labor conditions or a licensing regime including contribution to financing the USO). These two kinds of regulation are considered to be fair because they aim at leveling the playing field for all operators in the sector. If there was no USO they would represent the full regulatory framework in place. Third, the USO applies directly to the USP only. The burden of the USO is potentially unfair if it affects operators asymmetrically. When assessing the Regulatory Delta, it is important to consider whether (sector-specific) regulation is related to the USO. There are two possible cases that are extreme variants; mixed cases are also conceivable:

Case 1: There is no link between the USO and other sector-specific regulation. Consequently, in the counterfactual scenario without USO, all other regulations (including the

licensing requirements) remain unchanged. This is the case if sector-specific regulation guarantees a level playing field with for competition except for the USO. Sector-specific regulation belonging to case 1 often comprises price control to prevent inefficient pricing and monopoly profits. These would be in place even in the absence of a USO.

Case 2: Sector-specific regulation (and potentially also general regulation) is linked to the USO. It may be indirectly linked to it if postal operators have to contribute to its financing. Licensing conditions which aim at safeguarding the financial viability of the USO by raising barriers to entry for competitors or obligating them to contribute to financing the USO would not be necessary in the absence of the USO. As a consequence, if there is no USO, there are no (or different) sector-specific regulations. This implies that all operators' profits are higher in the counterfactual scenario since constraints are relaxed compared to the counterfactual scenario in case 1. The concept also makes sense if requirements as part of sector-specific regulation are increased in a situation without the USO in order to mitigate a potential loss of service quality. Stronger restrictions in the hypothetical scenario for all operators would affect profits and therefore the net cost of the USO. In addition, regulation may be linked to the USO. Imposition of a USO and assorted requirements could subject the USP to abuse of dominance provisions, which it would not have been subject to otherwise.

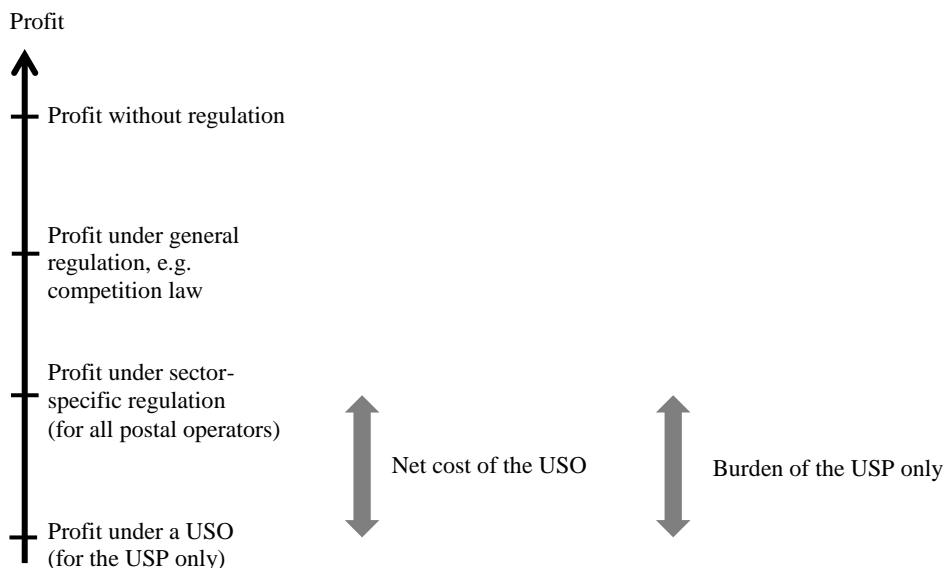
What does this imply for the calculated net cost? In case 1, the calculated net cost is equal to or lower than net cost in case 2, because in case 1 there are more binding constraints with fewer opportunities for profit maximization in the counterfactual scenario. In order to restore a level playing field, asymmetric compensation is necessary wherever there is an extra, asymmetric obligation which distorts the levelness of the playing field. E.g. a compensation for the net cost only the USP incurs from the USO ensures that the USP is not worse off as a result of its obligation. Consequently, the cost associated with the difference in regulatory demands between the USP and its competitors (Regulatory Delta) should be taken into account in determining appropriate compensation.

Regarding the two cases outlined above, this implies that in case 2, part of the net cost is directly shared between operators in case 1, USP is the only operator bearing a burden (which is equal to the net cost). Applying the Regulatory Delta concept, the net cost that is shared with other operators does not represent an unfair burden and would not be compensated because there is no different treatment of the USP and other operators.

## 2.1 Implementation based on case 1

Figure 1 schematically shows how an operator's profit level is affected by regulation. Without regulation, profit is highest because e.g. the abuse of market dominance is not prohibited. Competition law and other general regulation reduce profit by regulating anti-competitive conduct by companies. Sector-specific regulation further reduces profits, e.g. by obligating operators to deliver mail at a certain minimum number of days or to contribute to the financing of the USO. A USO may further reduce profits by introducing additional restrictions, e.g. related to the density of the postal network, the frequency of delivery etc.

The underlying assumption of case 1 is that in absence of the USO there would be the same regulation in place. This implies that the hypothetical scenario must comply with the actual regulatory environment and that the entire net cost is an unfair burden because it results entirely from asymmetric regulation between the USP and its competitors.



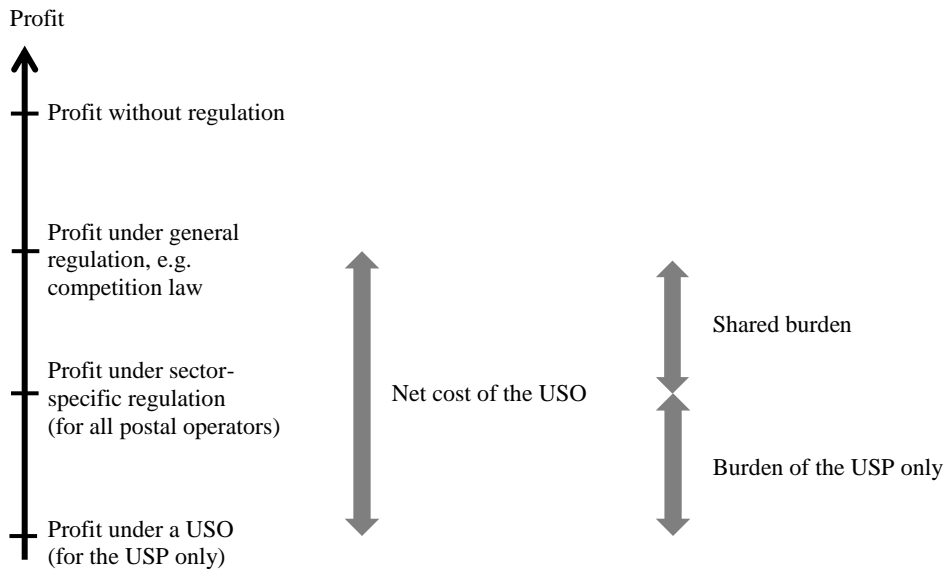
**Figure 1: Illustration of implementing option 1**

This implementation may be regarded as fully compliant with the Postal Directive. The main advantage is that there is no separate calculation needed by the NRA to calculate the net cost, as the compensation coincides with the net cost. Further, it is not necessary to make assumptions about the hypothetical business strategy of the USP in a scenario without sector-specific regulation.

## 2.2 Implementation based on case 2

The underlying assumption of case 2 is that in absence of the USO, regulation would be different. In an extreme case, there would be no sector-specific regulation at all. Hence, in the calculation of the net cost, the situation with USO is compared to a situation with general regulation only. Then, the total net cost consists of two parts: (1) A part which can be interpreted as being

shared by other operators and (2) another part, which represents the unfair burden because it is borne by the USP only (unfair as long as the non-USO profit baseline is considered to be fair). An illustration is provided in Figure 2.



**Figure 2: Illustration of implementing option 2**

This implementation may also be regarded as fully compliant with the Third Postal Directive. It is even closer to it because it – like the Directive – clearly distinguishes between the net cost and the unfair burden. Hence, there will be no discussion whether the unfair burden is accounted for already within the net cost calculation. Moreover, changes in sector-specific regulation (and supposed changes in the counterfactual scenario) are made explicit.

Table 1 and Table 2 show a stylized example with two operators. It compares revenue-related criteria for the two cases introduced above to an assessment of the net cost under the Regulatory Delta concept.

	Case 1 (unchanged sector-specific regulation in the counterfactual scenario)			Case 2 (no sector-specific regulation in the counterfactual scenario)		
	Profit with USO	Profit without USO	Net cost	Profit with USO	Profit without USO	Net Cost
<b>USP profit</b>	100	110	10	100	140	40
<b>Competitor profit</b>	50	50		50	80	

**Table 1: Assumptions on profits in cases 1 and 2 in the example (Table 2)**

Legend: Numbers indicate currency units

The example assumes that (case 2) sector-specific regulation reduces the USP’s (and also the competitors’) profits by 30 currency units while the USO additionally reduces the USP’s profits by 10 currency units. Hence, the operators’ counterfactual profits in case 2 are higher than in case 1 because there are fewer restrictions in case 1 from sector-specific regulation. Under revenue-related criteria a low net cost (e.g. 10 currency units) is considered negligible compared to the size or the profit of the operator and is not considered to represent an unfair burden. This

results in zero compensation. Conversely, the Regulatory Delta aims at identifying those parts that are unfair and represent an extra financial burden. Hence, revenue-related criteria result in higher compensation if the net cost is higher because the share of the net cost compared to revenue (or EBIT) is higher *ceteris paribus*. In the example, according to revenue-related criteria, the USP is compensated only in case 2 because the net cost exceeds the negligibility threshold only there. With the Regulatory Delta concept, compensation according to the unfair burden is the same in both cases since the competitor shares part of the net cost if sector-specific regulation is related to the USO (case 2).

	Net cost	Revenue-related		Regulatory Delta	
		Unfair burden	Compensation	Unfair burden	Compensation
Case 1	10	0	0	10	10
Case 2	40	40	40	10	10

**Table 2: Comparison of revenue-related criteria and the Regulatory Delta concept**  
 Legend: Numbers indicate currency units

### 2.3 Compliance with the Third Postal Directive

The Regulatory Delta concept is in the spirit of the Third Postal Directive, which prescribes that compensation should only be awarded for the net cost that represents an unfair burden. The Postal Directive does not explicitly specify how to assess the unfair burden. However, it specifies a series of requirements in Annex I, Part C:

“The recovery or financing of any net costs of universal service obligations may require designated universal service providers to be compensated for the services that they provide under non-commercial conditions. As such compensation involves financial transfers, Member States have to ensure that they are undertaken in an *objective, transparent, non-discriminatory* and *proportionate* manner. This means that the transfers result as far as possible in the *least distortion to competition* and to user demand.

A sharing mechanism based on a fund referred to in Article 7(4) should use a *transparent* and *neutral* mechanism for collecting contributions that avoids a double imposition of contributions falling on both outputs and inputs of undertakings.”

Article 7(5) states that:

“Member States shall ensure that the principles of *transparency, non-discrimination* and *proportionality* are respected in establishing the compensation fund and when fixing the level of the financial contributions referred to in



paragraphs 3 and 4. Decisions taken in accordance with paragraphs 3 and 4 shall be based on *objective* and *verifiable* criteria and be made public.”

These requirements are all met by the Regulatory Delta concept. The resulting compensation is objective, transparent, non-discriminatory and proportionate (to distortions in the levelness of the playing field). It is also a neutral mechanism leading to the least distortion of competition and user demand. Furthermore, it is objective and verifiable since it either equals the calculated net cost or can be calculated the same way by adjusting the relevant counterfactual scenario.

As introduced in Section 1, CERP and ERGP appear to favor revenue-related criteria to assess the unfairness of a financial burden although not proposing an explicit rule. A comparison of revenue- or EBIT-related criteria with the provisions in the Third Postal Directive reveals important shortcomings. In particular, non-discrimination is not ensured, competition is distorted, the sharing mechanism is not neutral and a double imposition of contributions is not safely avoided (see the example below).

Table 3 summarizes the compliance of the Regulatory Delta concept with the Third Postal Directive as compared to revenue- or EBIT-related criteria.

Criteria in the Third Postal Directive on compensation / unfair burden	Revenue-related criteria	Regulatory Delta
Objective	(✓)	✓
Transparent	✓	✓
Non-discriminatory	✗	✓
Proportionate	(✓)	(✓)
Least distortion of competition and user demand	✗	✓
Neutral and transparent mechanism	✗	✓
Avoid double imposition of contributions	✗	✓

**Table 3: Compliance of Regulatory Delta with the Postal Directive**

Legend: ✓: In line with the Postal Directive; ✗: In conflict with the Postal Directive; (✓): Slight deviations from the Postal Directive

The Regulatory Delta concept is hence – in contrast to revenue-related concepts – in full compliance with the Postal Directive.

### 3. EXAMPLES

This section describes actual licensing systems in Finland and Spain and assesses their consistency with the above considerations.

The Finnish Postal Act states in Section 33 that

- (1) A universal service provider will be reimbursed from central government funds for the part of the universal service net cost which constitute an unreasonable financial burden for it with regard to
  - 1) the size of the undertaking;
  - 2) the type of business activities;
  - 3) the turnover of the undertaking's activities; and
  - 4) other similar elements.
- (2) The reimbursement for costs referred to above in subsection 1 is decided by the Ministry of Transport and Communications on the basis of a net cost calculation by the Finnish Communications Regulatory Authority. Other postal undertakings must participate in the reimbursement of these costs to the universal service provider. Provisions on the determination and criteria for reimbursements paid by other postal undertakings will be laid down separately by law.

Itella Oyj is the designated USP in Finland. Other postal operators' license terms (for the time being Esan Kirjapaino Oy and Ilves Jakelu Oy) include the need for an office in each operating location and the obligation for three delivery times per week in the operating area. In the hypothetical scenario Itella can be assumed not to have the USO nor does any other operator. Itella is still the dominant market operator and has a postal operator license.

However, the licensing system in Finland imposes considerable obligations on operators other than the USP. If these are assumed to be independent of the USO and also in place without USO, this represents case 1 above and the unfair burden equals net cost of the USO. If the licensing conditions are related to the USO, in the counterfactual scenario they would be abolished together with the USO. This is case 2 above, where the unfair burden is only part of the net cost of the USO which consists of two parts: One which is shared with other operators and can be viewed as "participation of other postal undertakings" as required by Section 33(2) of the Finnish Postal Act and another which is the unreasonable financial burden based on a broad interpretation of Section 33(1) of the Finnish Postal Act and which equals the necessary compensation from government funds as mentioned in Section 33(1) of the Finnish Postal Act.

In Spain, Correos y Telégrafos S.A. is the designated operator by the Spanish Government to provide the universal services. The licensing requirements are different for the companies that want to provide services included in the USO and for the companies that do not want to do so. Postal service providers that offer services included in the USO need a "singular administrative

authorization” that can be requested to the National Commission of the Postal Sector. The postal service providers that are granted such authorization must make an annual contribution to the compensation fund dedicated to pay the unfair financial burden to the designated operator. The amount of this compensation is 0.5% of the annual revenue derived of the postal activities included in the USO. This percentage can vary annually by an indication in the State Budget but has until now remained unchanged.

The National Commission of the Postal Sector will verify that the prices settled by the providers of postal services do always respect the principles of transparency, proportionality and non-discrimination. It will also verify that these rates do not increase the funding requirements of the USP or the unfair financial burden of the USP. Additionally, and according to the article 14 of the Law 23/2007 of the Government of Spain, the holders of a singular administrative authorization must annually pay 0.1881% of the gross income produced by their activity in the postal sector. This contribution is called the *activity fee* and is independent of the 0.5% of the revenue that must be paid to the compensation fund destined to compensate the unfair financial burden. The USP, Correos y Telégrafos S.A., is exempt to pay this activity fee.

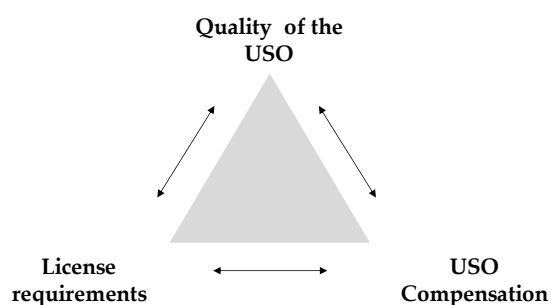
For the providers of postal services that want to operate outside of the areas of the USO, a “responsibility statement” is required. This declaration must include criteria such as the obligation of data protection, privacy and the fulfillment of all the rules included in the article 18.3 of the Spanish Constitution. Besides administration fees, no other requirements are called for the companies that want to offer their postal services outside of the USO areas.

Hence, the contribution towards the USO fund by operators offering services within the scope of the USO is directly related to the USO being in place. In the counterfactual scenario, it can be assumed that no such fund exists because there is no USO to be financed. However, the activity fee can be assumed to be still in place because it is not related to the USO, and Correos would not be exempt from this fee. These regulations in Spain allow for a consistent implementation of the Regulatory Delta concept in both cases discussed above.

#### **4. FUNDAMENTAL TRADE-OFFS IN DEVELOPING POSTAL REGULATION**

A coherent implementation of the Regulatory Delta concept to determine the unfair financial burden establishes trade-offs between (1) sector-specific regulation (independent or in addition to the USO), (2) government subsidies, and (3) the scope of the USO for the long-term development of competition and regulation in the postal sector. The Regulatory Delta implies that fair government subsidies are high when the licensing requirements (obligations applying to all operators, such as e.g. a certain minimum number of delivery days) are low because the con-

straints on the USP and its competitors are unequal and competition is comparably strong. Reducing the USO also reduces compensation (the net cost is lower) but it also reduces the cost of the provision of postal services and increases the USP's competitiveness compared to competitors. High licensing requirements imply a larger share of common requirements and hence reduced compensation. It is not possible to attain a high level of quality, strong competition and a low level of compensation for the USP at the same time. The trade-offs are illustrated in Figure 3.



**Figure 3: Trade-offs under the Regulatory Delta concept**

A coherent application of the Regulatory Delta implies first the implementation of case 1 or 2 above and second that the weight of the unfair burden is not corrected depending on the revenue or profit of the USP. Taking into account the trade-offs shown in Figure 3, there are three options for the long-term development of regulation in the postal sector:

**Option 1: Uniform high quality.** This option implies strong sector-specific regulation applying to all operators e.g. in relation to quality of service, coverage, delivery frequency, uniformity and affordability of tariffs – also in a scenario without USO. This regulation ensures high standards of quality by all operators, but it also acts as a barrier to entry and results in a small number of competitors with possibly a low intensity of competition and therefore a low compensation need for the USP.

**Option 2: High Compensation.** In the second option shown requirements due to sector-specific regulation are low such that it is easy for other postal operators to enter the market. As a consequence, there is a large difference between the situation with USO and a hypothetical scenario and therefore a high net cost for the USP. This results in a high compensation need.

**Option 3:** The third option achieves a low compensation need and a high intensity of competition by implementing a low level of the USO with a low net cost in combination with low licensing requirements.

## 5. SUMMARY AND CONCLUSION

The paper argues that a USO may also affect other aspects of regulation to which postal operators are subject. This change in regulation between the counterfactual scenario without USO and

the situation with USO must be taken into account in the calculation of the net cost of the USO: One needs to look at whether the regulations under which a USP operates might be different with or without a USO. For example, if a USP is price-regulated regardless of having a USO, the net cost of the USO may be low compared to where the USP is unregulated absent the USO but regulated with it. In the latter case, the USO means that the USP might lose monopoly profits along with the relatively direct costs of the USO, while in the former case, e.g. with profits held to zero, the net cost of the USO may be much smaller, possibly nonexistent if additional costs can be passed on to consumers through higher prices.

With the Regulatory Delta concept, the fair compensation of the net cost depends on differences in regulation that apply to the USP and its competitors. If competitors are restricted in their business models by sector-specific regulation (e.g. licensing requirements) which is related to the USO and which affects their operations, this can be considered a contribution to the financing of the USO and should be taken into account in the determination of the USP's compensation. Hence, the counterfactual scenario must include a clear idea about the regulatory environment for all operators.

## **REFERENCES**

- Boldron, F., C. Borsenberger, D. Joram, S. Lecou, and B. Roy (2009). A Dynamic and Endogenous Approach for Financing USO in a Liberalized Environment, in: *Progress in the Competitive Agenda in the Postal and Delivery Sector*, ed. by M. A. Crew and P. R. Kleindorfer, Edward Elgar.
- CERP (2008). *Guidelines for Calculating the Net Cost of the Universal Service Obligations*.
- ERGP (2012). *Net cost calculation and evaluation of a reference scenario*.
- Jaag, C. (2011a). What is an Unfair Burden? Compensating the Net Cost of Universal Service Provision, *Review of Network Economics* 10(3).
- Jaag, C. (2011b). Entry Deterrence and the Calculation of the Net Cost of Universal Service Obligations, *Review of Network Economics* 10(1).
- Jaag, C. and U. Trinkner (2011). The Interaction between Universal Service Costing and Financing in the Postal Sector: A Calibrated Approach, *Journal of Regulatory Economics* 39(1).
- Frontier Economics (2013). *Study on the principles used to calculate the net costs of the postal USO*, Report prepared to the European Commission.