Recommendations on the form and manner that a net cost submission should be made by the universal service provider

A REPORT PREPARED FOR COMREG

July 2013

Recommendations on the form and manner that a net cost submission should be made by the universal service provider

Recommendations on the form and manner that a net cost submission should be made by the universal service provider

Executive Summary

Frontier Economics have been commissioned to assist ComReg in developing a methodology for a universal service obligation (USO) net cost and unfair burden assessment, before any net cost claim is made by the USP.

Our terms of reference are to prepare a report setting out in detail recommendations in relation to:

1. the form and manner that a net cost submission should be made by the universal service provider including detailed guidance on "the reference scenario" that should be utilised by the USP
2. how ComReg could assess whether a net cost is an unfair burden, and
3. how ComReg sets the sharing mechanism to fund any unfair burden

In line with our terms of reference, this paper sets out our assessment and recommendations in relation to the first element of the above.

Choosing the net cost methodology

There are a number of methodologies that could be used to calculate the net cost of the USO. These include:

- Deficit Approach with Fully Allocated Cost (DA);
- Net Avoided Cost (NAC); and
- Profitability Cost (PC).

Our assessment is that, in the context of the Irish market, the PC approach is most appropriate. In particular, we find that the PC approach:

- Can capture the full complexity of a reference scenario. This approach is not restricted by the status quo and allows for the modelling of a whole host of potential changes that an operator could make in the absence of the USO. The PC approach can model not only the potential withdrawal of certain USO products, but importantly can also capture the effects of removing or relaxing specific elements of the USO.
- Can take account of all changes arising from modifying the USO. This includes direct effects on demand, costs and market shares arising from changes in the USO.
- Is better at taking account of efficiency. This is important as the net cost calculation should not include the impact of inefficient operation in order to better comply with Annex 1 of the Directive 97/67/EC.

Applying the recommended methodology

The PC methodology is based around two key steps:

1. **Identification of an appropriate reference scenario:** in the reference scenario the USP faces no binding constraint as to the services it offers. The reference scenario therefore seeks to identify the changes to the current service provision that an operator would make if it were operating on an unconstrained commercial basis.

2. **Identification of the change in costs and revenues (and hence the change in net profit) between the baseline scenario and the reference scenario:** To assess the net cost of the USO, one then compares outcomes in the reference scenario to outcomes in the baseline (USO) scenario. It is important to note that this is about more than just logging up the cost savings the USP would make as a result of changes to service provision. One must also calculate the revenues that would be foregone as the product offering is amended relative to the base case.

Developing the reference scenario

In relation to the first of these two key steps, we believe that the universal service provider is best placed to determine the reference scenario. We therefore recommend that An Post takes responsibility for developing such a reference scenario based on its in-depth commercial knowledge.

In theory, there could be a large number of reference scenarios (as many of the individual or combined obligations could be removed). However, in practice we suggest the possible scenarios that An Post could choose are more limited. In order to determine the reference scenario, we suggest that two categories of variations should be considered sequentially, as illustrated in **Figure 1**.

Figure 1. Possible variations to An Post's current service offering

Source: Frontier Economics

Although a change in the price level of An Post's products would clearly be feasible, changes to the structure of the prices of particular products would represent a fundamental change to the product offering that is likely to lie outside the range of commercial strategies that an operator would consider to be feasible or profitable. We also suggest that such a move would lead to substantial customer disruption and could impose substantial additional costs on An Post. We therefore recommend that ComReg should not allow consideration of changes in the structure of prices (rather than the price level) to form part of the reference scenario.

Estimating the net cost of the USO

Once the reference scenario has been identified and agreed, the next step is to calculate the net cost of the USO. The net cost seeks to measure:

- revenues foregone by modification of the universal service;
- costs avoided by modification of the universal service; and
- (ideally) the change in the value of indirect benefits that result from the modification of the universal service.

In order to measure the first two of these effects, it is critical to understand how volumes, market share and costs depend on service specification.

- **Volumes:** volumes will change if customers send less mail as a result of service specification changes, or switch to different products. One can estimate the magnitude of the impact for different mail products with reference to statistical and survey evidence, and through a survey process with key stakeholders.

- **Market shares:** One must consider the possibility that service changes would lead to direct changes in market shares – for example, alternative operators could start delivering if An Post dropped a service.

- **Costs:** It is necessary to develop an in-depth understanding of the costs of key pipeline activities including indoor and outdoor delivery, mail centres, collections and the transport network (e.g. the routes and timing of road) in order to estimate step changes in costs in response to service changes and to estimate the impact of volume changes on costs.

It is important to note that:

  - the estimates of volumes and market shares will impact directly on the revenues generated in the reference scenario; and
  - the estimates of volumes and market shares are an input into the calculation of costs in the reference scenario.

Volumes

In order to estimate the likely volume effects, the analysis will need to:

  - establish what volumes are in the base case; and
  - set out how volumes might be expected to change as a result of moving to the reference scenario.

To establish base case volumes, volume data from the financial year to which the funding request applies should be used. This should be on as disaggregated a basis as possible. All volume information should be presented in a way that allows it to be mapped to the pipeline: collections, mail centres and transport, and delivery. Volumes should also be broken down by day of the week.

Once the base case has been established, the next step is to estimate what would happen to volumes under a move to the reference scenario. In estimating the volume effects associated with a move to the reference scenario, it is important to recognise that there will be uncertainty associated with the estimates. It will therefore be particularly important to ensure that appropriate scenario analysis and sensitivity testing is undertaken to assess the robustness of the results.

We suggest that An Post should combine information from a range of sources:

- **Direct evidence of revealed preference:** An Post should consider the feasibility of estimating quality of service elasticities (i.e. estimate how mail demand varies in response to changes in quality of service).

- **Survey evidence:** An Post should also seek to develop survey evidence to measure customer preferences for postal products and different elements of service quality. The purpose of such evidence is to identify the elements of the universal service that are more important than others from a customer perspective, and to understand the extent to which different types of customers place a different value on various service features.

- **Interviews:** An Post may wish to carry out interviews to develop a more qualitative understanding of how mailers could react to changes in service specification. For example, for large customers in particular, a key issue could be to understand the extent to which changes in the service specification could lead to an acceleration of e-substitution.

- **Sensitivity testing:** It is likely that there will be a level of uncertainty about the demand estimates An Post derive. Consequently, it will be important that An Post run a set of scenarios around the central estimates to assess the sensitivity of results to different assumptions.

Market share

An Post face not only a direct demand effect, but also a market share effect. There is also a possibility that some modifications may cause a more profound effect upon An Post's position in the market than others:

- major changes that fundamentally alters the perception of An Post relative to competitors; or
- changes disproportionately affecting An Post's quality relative to rivals.

To estimate the likely impact on market share we suggest that a qualitative analysis should be undertaken which:

- assesses the extent to which the move to the reference scenario makes market entry and/or customer switching more likely; and
- assesses case study evidence on the evolution of competition in other markets to identify the potential magnitude of such effects.

On the basis of the above, we recommend that scenario analysis is developed to estimate the potential impact of market share effects on volumes across streams.

Costs

The third element of estimating net cost is the estimation of costs in the base and reference case. The costs included in the net cost calculation should be equivalent to those of an efficient operator so that the net cost excludes any inefficiencies. There are three critical decisions to be taken:

- whether analysis is based on a model, accounting data or a mix of both;
- if a model is required, the relevant coverage for the model; and
- if a model is required, the relevant cost standard for the modelling.

Model or accounting data?

In determining which is more appropriate, it is important to consider the type of costs change that arises from the move from baseline to reference scenario:

- volume effect (as described above); and
- step change.

Although An Post's accounting data is likely to be able to inform on the cost effects of (small) changes in volume, we suggest that the accounting data is unlikely to be suitable to form the basis of estimates of step changes in costs:

- accounting data is not designed to estimate costs of running the business with and without the USO.
- to the extent that the accounting models do estimate cost elasticities associated with modifying or removing the USO, these are short run in nature and do not encompass the effects of re-optimising operations without a USO.
- even if costs and processes are accurately assessed the estimates may not represent the optimal level of operational efficiency. In consequence, we recommend that if the reference scenario is likely to lead to a step change in costs, then it will be necessary to develop a bottom up model to estimate the costs in the reference scenario.

The same decision around cost estimation applies to the base case. We suggest that there is a significant concern that using a mix of actual data and modelled estimates for comparison of the baseline and the reference scenarios could give rise to a mixing up of efficiency effects with USO net cost effects. We recommend therefore that if An Post is going to model costs in the reference scenario, it is also important to model costs in the baseline, so that cost comparisons are conducted on a like-for-like basis.

Relevant coverage?

It is important to ensure that the model provides enough granularity to reflect the cost impact of moving from the current USO baseline to the reference scenario. In this regard, it will be important that the model is able to:

- estimate the cost changes associated with changing postal volumes; and

- estimate step changes in costs arising from changes in service specification.

Given the likely changes that An Post may identify as part of the reference scenario, we recommend that to be able to estimate cost step changes An Post should develop (or adapt, if An Post already has such a model in place) a bottom up operational cost model, containing at least modules for the following different parts of the pipeline: collections; mail centres; feeder services; and deliveries.

We recommend that An Post also be required to provide a qualitative analysis and detailed commentary which describes how operations and workplans could change in response to each element of change in the definition of the universal service in the reference scenario.

Relevant cost standard?

From a methodological point of view, the PC approach seeks to identify the avoidable costs that would be saved as a result of changes to the universal service specification. The concept of avoidable cost is more closely related to the concept of LRIC. Consequently, we recommend that the bottom up operational model be based on LRIC.

Intangible and market benefits

One could attempt to model intangible benefits and how they might change as the USO changes. However, by their nature, intangible benefits are difficult to quantify so modelling them is difficult to do. Rather, we suggest that as part of the market share analysis described earlier, An Post consider the extent to which:

- its brand and status as USP is likely to have a chilling effect on customer switching; and
- consider a market share scenario in which, hypothetically, it was required to 'rebrand' and so would no longer have name recognition as the USP[1].

A separate issue that arises in relation to market and intangible benefits is whether the VAT exemption of the USO should be treated as a a market benefit. Conceptually, our recommended approach to dealing with this issue is to assume that a universal service obligation would apply in both the baseline scenario and in the reference scenario. Consequently, this approach assumes that the reference scenario represents a reduced USO that the USP must meet. We believe that this treatment is appropriate given the provisions of the 2011 Act. It also minimises

---

1 Although intangible benefits should be considered as part of the market share analysis, we would expect An Post to remain the USP under the reference scenario and therefore not be required to 'rebrand'.

the complexity and supporting evidence that would be required if the reference scenario did not represent a USO, even a reduced one. In particular, section 16 of the 2011 Act allows for a relaxing of the universal service obligations in circumstances or geographical conditions that ComReg considers to be exceptional[2].

However, this approach might not be possible if the reference scenario included a move away from uniform pricing for single piece mail. This is because section 28(2)(a) of the Act would still apply. This requires a uniform tariff to be applied throughout the State to any postal service provided at a single piece tariff. Pursuant to section 28(2)(b), in actuality to remove this requirement would need prior consent of the Minister. A reference scenario that included a move away from uniform pricing would therefore need to assume that An Post has sought and received consent from the Minister under section 28(2)(b) of the 2011 Act. In the case of a change from uniform pricing to negotiated pricing, An Post would no longer enjoy the VAT exemption on USO products that currently applies. As such, a proportion of customers would not be able to reclaim the VAT paid and would therefore effectively face a 23% increase in price. The bottom up operational cost model would therefore need to take account of the full impact of this in the reference scenario. This issue is discussed in greater detail in the chapter below dealing with guidance on the reference scenario.

Net cost calculation

Finally, once An Post has carried out the above analysis, the final step is to calculate the net cost of the USO. To do so, An Post should:

- compare revenues in the baseline year to modelled costs in the baseline[3];
- compare revenues in the reference scenario, which have been adjusted to reflect volume changes and market share effects, with modelled costs in the reference scenario;
- the net cost of the USO is the difference between the two figures.

We recommend that no adjustment is required to make allowance for a reasonable profit.

Pursuant to section 35(4)(a) of the 2011 Act, ComReg shall then, on the basis of the information provided by An Post, determine whether the provision of the USO by An Post represents a net cost to An Post.

---

2 Section 16(8) of the 2011 Act requires ComReg to notify the Minister, the European Commission and the national regulatory authorities in all Member States.

3 We are assuming here that the reference scenario will be sufficiently different from the baseline that the development of a model will be required.

1 Introduction

An Post is the designated Universal Service Provider (USP) for postal services in Ireland. Under the Communications Regulation (Postal Services) Act 2011 ("the 2011 Act") An Post is entitled to seek funding for the net costs (if any) of providing a universal postal service.

Under the Act, such a request shall be:

- made in a form and manner as ComReg determines;
- submitted after the financial year ending 31 December 2012 for the year of designation and for each year after that no later than six months after the accounts for the financial year concerned have been audited (unless ComReg agrees otherwise); and
- accompanied by any such supporting information as may reasonably be required by ComReg.

Once ComReg receives such an application, it must determine whether the provision of a universal postal service by the universal postal service provider concerned:

- represents a net cost, taking into account any market benefits which accrue to the universal service provider; and
- is an unfair burden to the universal service provider.

Frontier Economics have been commissioned to assist ComReg in developing a methodology for a universal service obligation (USO) net cost and unfair burden assessment, before any net cost claim is made by the USP.

Our terms of reference are to prepare a report, having due regard to the Communications Regulation (Postal Services) Act 2011 and Directive 97/67/EC (in particular Annex 1), as amended, setting out in detail recommendations in relation to:

1. the form and manner that a net cost submission should be made by the universal service provider including detailed guidance on "the reference scenario" that should be utilised by the USP
2. how ComReg could assess whether a net cost is an unfair burden, and
3. how ComReg should set the sharing mechanism to fund any unfair burden

This report addresses the first of the three elements of the terms of reference. In particular, in this report, we:

- outline the approaches that could be used to assess the net cost of the USO and provide a recommendation to ComReg as to the methodology that is most appropriate given the relevant market circumstances;
- provide guidance on the appropriate development of a 'reference scenario' that should be utilised by the USP; and
- provide guidance on the evidence and analysis that ComReg will require the USP to include as part of any assessment of a net cost application.

The remainder of this report is structured as follows:

- Chapter 2 sets out background to the study in terms of the relevant legislation and regulations, highlighting in particular those elements to which we have had due regard in the preparation of this report;
- Chapter 3 sets out an overview of the methodologies that could be used to assess the net cost of the USO, alongside an assessment and recommendation to ComReg; and
- Chapter 4 sets out guidance on the implementation of the preferred methodology, including guidance on the development of an appropriate reference scenario.

2 Background to the study

As set out above, our terms of reference require us to have due regard to the Communications Regulation (Postal Services) Act 2011 and Directive 97/67/EC (in particular Annex 1), as amended.

In order to develop a methodology for an assessment of the net cost of the USO to the USP, it is first important to understand:

- what is covered by the USO; and
- the relevant legislation and regulation that needs to be adhered to in undertaking a net cost assessment.

This section provides details on each of these points.

2.1 Universal service obligation (USO)

Section 16 of the Communications Regulation (Postal Services) Act 2011 ("the 2011 Act") sets out a general description of the "universal postal service" that An Post as the designated "universal postal service provider" is required to provide. Section 16 (1) specifies the universal postal service to mean one clearance and one delivery every working day. It also specifies that the following services must be provided under the universal postal service:

- the clearance, sorting, transport and distribution of postal packets up to 2kg in weight;
- the clearance, sorting, transport and distribution of parcels up to 20kg, unless alternative weight threshold is specified by ComReg;
- the sorting, transportation and distribution of parcels from other Member States up to 20kg in weight;
- a registered item service;
- an insured item service within the State and to and from all countries which, as signatories to the Universal Postal Convention of the Universal Postal Union, declare their willingness to admit such items whether reciprocally or in one direction only; and
- postal services, free of charge, to blind and partially sighted persons.

Based on the requirements set out under section 16(1), ComReg is required by section 16(9) of the Act to "make regulations specifying the services to be provided by a universal postal service provider relating to the provision of a universal postal service". As a result, following public consultation, ComReg made the Communication Regulation (Universal Postal Service) Regulations 2012 in SI 280 of 2012. In making these Regulations, ComReg specified a "de minimis" set of universal postal services that meet the needs of postal service users, while also minimising the regulatory burden on An Post as the universal service provider. In summary, the universal postal services specified were:

- a single piece service involving the clearance, sorting, transport and distribution of letters;
- a single piece service involving the clearance, sorting, transport and distribution of large envelopes;
- a single piece service involving the clearance, sorting, transport and distribution of packets;
- a single piece service for the clearance, sorting, transport and distribution of parcels;
- issuing free certificates of posting;
- a registered items ("proof of delivery") service;
- an insured items service;
- a single piece service provided free of charge to the postal service user for the transmission of postal packets for the blind;
- a service for the clearance, transport and distribution of postal packets deposited in bulk for delivery only;
- a service for the clearance, transport and distribution of foreign postal packets deposited in bulk pre-sorted by country of destination;
- a service for the clearance, transport and distribution of "postal packets deposited in bulk" for "deferred delivery";
- a service for the sorting, transport and distribution of postal packets deposited with a universal postal service provider at an Office of Exchange within the State by the designated operator of a signatory to the Universal Postal Convention; and
- the following special facilities for the delivery of postal packets at the request of the addressee:
  - Private boxes and bags
  - Redirection
  - Poste restante
  - Mailminder
  - Business Reply

Background to the study

- Freepost.

Section 16(1) also allows for an adjustment of the universal service obligations in circumstances or geographical conditions that ComReg considers to be exceptional. Pursuant to section 16(6), when considering any exception to the provision of a universal postal service, ComReg shall have regard to the technical, economic and social environment and to the needs to postal service users[4]. Therefore, given these requirements, it is considered that any reduction of the universal service obligations would likely be only based on the information provided as part of an application from An Post. Given the information asymmetry it is only An Post, as operator designed by the 2011 Act as universal postal service provider, that would be in a position to advise on any reduced universal service obligation and provide the essential supporting evidence for any reductions sought.

2.2 Relevant legislation and regulations

Whilst undertaking this work, utmost account should be taken of both:

- the Communications Regulation (Postal Services) Act 2011; and
- the Directive 97/67/EC.

In order to provide recommendations in relation to the form and manner that a net cost submission should be made by the universal service provider, it's essential that particular attention is paid to certain sections of the above.

2.2.1 Communications Regulation (Postal Services) Act 2011

The main section of the 2011 Act to which particular attention should be paid is Chapter 5. This covers financial support for universal service provision. The chapter consists of two sections:

- Section 35 - Net cost of provision of universal postal service*;* and
- Section 36 - Financing of provision of universal postal service.

Particular attention should be paid to section 35 in undertaking this element of the work. Under this section, An Post, as the designated USP is entitled to seek funding for the net costs (if any) of providing a universal postal service

Under the Act, such a request shall be:

- made in a form and manner as ComReg determines;

4 Section 16(8) of the 2011 Act requires ComReg to notify the Minister, the European Commission and the national regulatory authorities in all Member States.

- submitted after the financial year ending 31 December 2012 for the year of designation and for each year after that no later than six months after the accounts for the financial year concerned have been audited (unless ComReg agrees otherwise); and
- accompanied by any such supporting information as may reasonably be required by ComReg.

Pursuant to section 35(4) of the Act, upon receipt of such an application, ComReg must determine whether the provision of a universal postal service by An Post:

- represents a net cost, taking into account any market benefits which accrue to the universal service provider; and
- is an unfair burden to the universal service provider.

For the purposes of making these determinations, ComReg, pursuant to section 35(5) of the Act must take into account:

- the methodology used by the USP;
- the extent to which the universal postal service is being provided in a cost-efficient manner; and
- any other information which ComReg considers relevant.

In undertaking this work, particular attention should also be paid to the tariff requirements set out in section 28 of the 2011 Act. Pursuant to section 28(1), tariffs for all universal postal services provided by An Post shall be:

- affordable and be such that all postal service users may avail of the services provided;
- cost-orientated, that is the prices shall take account of, and reflect the costs of, providing the postal service or part of the postal service concerned;
- transparent; and
- non-discriminatory.

Subject to this, section 28(2) also requires a uniform tariff to apply throughout the State to any postal services provided at single piece tariff. Prior consent of the Minister would be needed in order for this requirement not to apply.

2.2.2 Directive 97/67/EC

Annex 1 of the Directive 97/67/EC provides *Guidance on calculating the net cost, if any, of universal service*. In relation to this element of the work, particular attention should be paid to the guidance provided in relation to:

- Part A: Definition of the USO; and
- Part B: Calculation of net cost.

2.2.3 **Part A:** Definition of the USO

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

These obligations may include, among others, the following:

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

2.2.4 **Part B:** Calculation of net cost

National regulatory authorities are to consider all means to ensure appropriate incentives for postal service providers (designated or not) to provide USOs cost efficiently.

The net cost of USOs is any cost related to and necessary for the operation of the universal service provision. The net cost of USOs is to be calculated, as the difference between the net cost for a designated universal service provider of operating with the USO and the same postal service provider operating without the USO.

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

Due attention is to be given to correctly assessing the costs that any designated USP would have chosen to avoid, had there been no USO. The net cost calculation should assess the benefits, including intangible and market benefits, to the USP.

The calculation is to be based upon the costs attributable to:

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

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

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

The calculation of the net cost of specific aspects of the USO is to be made separately and so as to avoid the double counting of any direct or indirect benefits and costs. The overall net cost of the USO to any designated universal service provider is to be calculated as the sum of the net costs arising from the specific components of the USO, taking account of any intangible and market benefits. The responsibility for verifying the net cost lies with the national regulatory authority. The universal service provider(*s*) shall cooperate with the national regulatory authority to enable it to verify the net cost.

3 Recommendation on an appropriate methodology to calculate net costs

The first key element of our assessment is to identify an appropriate methodology for the calculation of any net cost associated with the USO. The purpose of such a net cost calculation is to understand the extent to which the obligations associated with the provision of the universal service imposes costs on An Post that they otherwise would not bear.

Consequently, at its core, the calculation of the cost of the USO needs to answer the following question:

> **How, in the absence of the USO requirement, would changes to the service specification previously provided under the USO or the removal of the USO services entirely affect the costs and revenues of An Post (if it were operating efficiently)?**

This question implicitly acknowledges that even without the constraints imposed by a USO, postal operators would continue to run a postal business, albeit one that might offer a different set of products and/or which might be configured on a different basis.

Frontier Economics recently carried out a study for the European Commission which examined the current state of play in relation to the experience of USPs and national regulatory authorities (NRAs) in calculating the net cost of the USO.

That study identified that three main types of methodology had been used to calculate the costs of the USO including:

- Deficit Approach with Fully Allocated Cost (DA);
- Net Avoided Cost (NAC); and
- Profitability Cost (PC).

Each of these methodologies has been used to undertake net cost calculations by regulators and universal service providers in other countries during the last decade.

The choice of appropriate methodology depends on a range of factors, including the purpose behind undertaking the calculation, e.g. funding, strategy or impact on the universal service provider, and the relevant market circumstances and regulatory arrangements in the member state in question.

In the remainder of this section, we provide an overview of the three methodologies, before setting out our recommendation to ComReg on the most appropriate methodology to employ in an Irish context. Specifically, the section provides:

- an overview of what is measured under each of these methodologies and how the net cost is calculated, along with details on its use in other European countries;
- a comparison of the advantages and disadvantages of each methodology; and
- a recommendation as to which methodology is most appropriate in this context and the key steps needed to undertake this methodology in practice.

3.1 Overview of possible methodologies

Each of the net cost methodologies outlined above use a different measure of net cost. **Table 1** provides a summary of each of these measures.

Table 1. Methods used in the estimation of the net cost of the USO

	Definition of the net cost of the USO
Deficit Approach	The difference between the sum of the losses from individual loss making products, and the sum of the profits from individual profit making products, as reported in the universal service provider accounts.
Net Avoidable Cost	The sum of the loss-making USO mail flows, where a mail flow in this context is made up of elements of products along a number of dimensions. (e.g. format, delivery zone, type of sender, class).
Profitability Cost Approach	The net cost of the USO is measured as the difference between a universal service provider's profit level with and without the USO, in a liberalised market. The Profitability Cost can also be expressed as the net avoidable costs – given by the sum of the change in incremental costs and the change in revenues.

Source: Frontier Economics

We explain each methodology in more depth below and provide examples of where each has been used by universal postal service provides and regulators in other countries, drawing on the findings of the Frontier Economics study for the European Commission.

3.1.1 Deficit approach

The net cost of the USO under the Deficit Approach (DA) is determined by deducting the sum of the profits of some USO products, as reported in the separated accounts from the sum of the losses of other USO products (also taken from the separated accounts).

$$\text{Cost of USO} = \Sigma_{i} (C_i - R_i) \text{ for all “i”}$$

Where: C_i = costs (fully allocated) associated with the provision of USO service "i"; R_i = revenues associated with the provision of USO service "i.

It measures the overall profit or loss that the USP currently generates from the provision of its USO. However, the analysis is performed at the level of the USO products/services only rather than the USP as a whole. For a net cost of the USO to exist under this method, the sum of the profits from the profitable USO products has to be lower than sum of the losses of loss making USO products.

The DA approach does not involve an analytical exercise to define what the USP would choose to do without the USO (i.e. a reference scenario). Instead, it only requires data from the USP's cost accounting systems, which can produce separated accounts for the USO area.

The cost concept used under the DA approach is fully allocated costs. The cost of the USO therefore includes both:

- the incremental costs of the USO area (i.e. product specific variable and fixed costs); and
- a share of the fixed and common costs (i.e. common to both USO and any other Non-USO activities of the USP).

Given that the USP's actual costs and revenues are typically used under this approach, an efficiency adjustment (if applicable) and an allowance for reasonable profit (to recover the cost of capital) are not taken into account as part of the approach (unless if, in producing their regulated accounts, USPs take into account the cost of capital or "reasonable profit"). These latter items would need to be considered ex-post if they are deemed necessary to include.

Use in other European countries

The Frontier Economics study for the European Commission found that the DA with fully allocated costs is used annually in Estonia by the USP, and was used until 2010 by the USPs in Belgium and Italy, who will now be replacing this methodology with a new one which will take account of a reference scenario.

In Italy and Estonia, the DA approach has been used to make funding applications to the NRA, whereas in Belgium it has only been used to undertake a calculation of the net cost of the USO in order to decide whether to apply for compensation or not. Following this, no funding application has been made to date.

3.1.2 Net Avoided Cost Approach

Under the Net Avoided Cost (NAC) approach, the net cost of the USO is given by the sum of the loss-making mail flows of the USO products.

$$\text{Net cost of the USO} = \Sigma_j (C_j - R_j) \text{ for all "j" where } R_j - C_j < 0$$

Where: C_j = operating costs associated with the provision of USO mail flow "$_j$"; R_j = revenues associated with the provision of USO mail flow "$_j$".

The NAC approach, as it has been applied in post, typically does not evaluate the net cost of the USO as a whole but the net cost of all the elements of the USO products. The elements capture the different handling characteristics of a product. Handling characteristics known to entail different costs are, amongst others, the format, or weight of the mail, the type of sender and delivery area and whether the item can be auto-sorted. Breaking down a product along its handling characteristics reveals that an item sold at a uniform price makes different margin contributions to the USP, depending on these handling characteristics.

Hence the NAC approach consists of three steps:

- the **first step** involves disaggregating the products into "mail flows", "segments" or "routes" based on handling characteristics and then allocating volumes, revenues and costs of USO services to the corresponding mail flows;
- the **second step** involves estimating the direct profit or loss to the operator of each "flow", "segment" or "route" identified in the first step (or contribution to profit or loss if incremental cost is being used); and
- finally, the **third step** is to calculate the net cost of the USO as the sum total of the net cost savings that would result if the universal service provider were to cease to provide a mail delivery service in these 'loss-making' "flows", "segments" or "routes".

The NAC approach focuses on the individual products under the scope of the USO but still considers the profitability of the USP as a whole.

As with the DA approach, the data required to implement this methodology is mainly obtained from cost accounting systems. These systems can typically produce product costings at a detailed level, to account for differences in the handling characteristics outlined above.

In theory, the cost concept which should be used under this approach is the incremental (or avoidable) cost of a product, i.e. product specific variable and fixed costs. In application, however, fully allocated costs have often been used as a proxy for avoidable cost. Where fully allocated costs are used, the cost of the USO can therefore include both the incremental costs of the USO area and a share of the fixed and common costs.

One criticism of the NAC approach is that it presumes that costs can be clearly allocated to each product, and even further to each handling characteristic. The outcome of estimating the net cost of the USO under the NAC approach will therefore be influenced by the level at which cost data is disaggregated.

Although methodologically, the NAC approach can include demand effects, in practice this has not been the case. In other words, the previous application of the NAC approach effectively assumes that customers would not react if the USP was no longer able to meet all their delivery needs.

Like the DA approach, the NAC approach typically uses the USP's actual operating costs and revenues associated with the provision of the USO products and services. Again, this means that the approach does not account for an efficiency adjustment (if applicable) or make an allowance for reasonable profits (to cover reasonable capital costs where these are not already taken into account). These latter items would need to be considered ex-post if they are deemed necessary to include.

Use in other European countries

The Frontier Economics study for the European Commission found that the NAC approach has been used recently by the USP in three countries: Spain (annually), Ireland and Bulgaria[5]. It has also been used in the past by the USP in Norway and the Competition Authority in Denmark.

In Spain and Norway, the NAC approach was used by the USP to make a funding application to the NRA. In Bulgaria it has been used by the USP to undertake a calculation of the net cost of the USO in order to decide whether to apply for funding not. In Ireland, it has been previously used by An Post for internal strategy, whilst in Denmark it was used to assess the USO impact on the USP.

3.1.3 Profitability Cost Approach

The Profitability Cost (PC) approach measures the difference between a USP's profit level with (w) and without (w/o) the USO in a liberalised market and can be expressed as stated below.

$$\begin{aligned}\text{Net cost of USO} &= \text{USP profit}_{\text{w/ USO}} - \text{USP profit}_{\text{w/o USO}} \\ &= (\Pi_{\text{w USO}}) - (\Pi_{\text{w/o USO}})\end{aligned}$$

Where: Π = net profit; $_{\text{w/o USO}}$ = without USO; $_{\text{w/ USO}}$ = with USO

If the USP is compensated for this difference, the USP achieves the same profit as it would in the postal market without any obligations. The PC approach therefore provides an estimate of the net cost of the USO which, if fully compensated, would make the designated USP indifferent about whether to provide the USO or not in a liberalised market. The PC approach is a conceptual approach which is used to obtain a "true" efficient net cost of the USO. That is, the net cost if the market is effectively competitive, and therefore, in the long run the USP would have to be efficient to be financially sustainable.

[5] The net cost calculation by the universal service provider in Bulgaria was in progress at the time of the Frontier Economics study for the European Commission.

The PC approach consists of four steps:

- the **first step** of the PC method is to define a reference scenario where the USP faces no obligations regarding the services it offers. This step involves identifying the part of the USO services that would not be provided or would be modified by a (profit maximising) USP, not subject to the USO;
- the **second step** is to calculate the costs that the USP would avoid should it move to the counterfactual scenario;
- the **third step** involves calculating the revenues that would be foregone under the counterfactual as the product offering is modified compared to the base case. Both direct and indirect demand effects are expected to impact revenue in this alternative scenario. The direct effect is the demand loss for products which would no longer be provided. The indirect effect is the impact of a change in one service on the demand for the other products of the USP;
- the **final step** of the PC method is to calculate the USO net costs as the change in the USP's profits should it move to the counterfactual scenario without the USO. Alternatively, and more frequently, analysts calculate the change in costs and the change in revenues.

The PC approach is focused on both the operational and product implications of having to meet the USO (rather than the provision of USO products or business in itself). It also considers the USP as a whole.

The cost concept used under the PC approach is the incremental (or avoidable) cost of a product.

The reference scenario is the key aspect of the PC method. Its development requires an assessment of how the USP would re-optimise its whole operation (USO and non-USO) in the absence of the USO. Given this, the approach is likely to be relatively more data intensive, at least when the calculation is first undertaken, especially because of the hypothetical nature of the reference scenario. This will likely require more resources from the USP and monitoring by the NRAs.

Use in other European countries

The PC approach is the most common method chosen for calculating the net cost of the USO. The Frontier Economics study for the European Commission found that this methodology has been applied in practice in Denmark, UK, Norway, Slovakia and the Netherlands:

- the NRA in Finland chose the PC as its preferred approach to be implemented if necessary in the future;

- in Norway, the PC approach has been used by the universal service provider for funding applications;
- in Slovakia and the Netherlands, on the other hand, it has been used by the universal service provider to undertake a calculation of the net cost of the USO in order to decide whether to apply for compensation or not, but no funding application has been made to date; and
- in both Denmark (by the Danish Chamber of Commerce) and the UK (by the national regulatory authority), the PC approach was used to assess the USO impact on the USP.

3.2 Comparison of methodologies

In order to provide a recommendation as to which methodology is most appropriate to calculate the net cost in the Irish context, it is important to carry out a comparison of particular aspects of each. Here, utmost account must be taken of the relevant legislation, regulatory arrangements and market circumstances that ComReg and An Post face. In particular, consideration should be made of the purpose behind undertaking the calculation - a funding application.

With this in mind, we believe that there are three key methodological aspects against which the comparison should be made. In particular, the:

- ability of the methodology to deal with relatively complex changes to the service specification in the reference scenario;
- ability to take account of all changes arising from the USO (e.g. demand effects) and ability to take account of efficiency; and
- precedent for use in other countries.

First, it is important that the chosen methodology is able to take account of the likely complexity of the reference scenario. As part of any funding application, the net cost calculation is needed to understand the extent to which the obligations associated with the provision of the universal service imposes costs on An Post that they otherwise would not bear. It is therefore vital that the methodology used for such a calculation allows for the estimate of these costs to be as accurate as possible. As such, it must be based on a reference scenario which provides as accurate a reflection as possible of the service offering that An Post would provide in the absence of the constraints imposed by the USO. In turn, the methodology must allow for this reference scenario[6].

---

6 However, other than those specified as part of the universal postal service in Section 16 of the 2011 Act, a reference scenario would still face the constraints imposed on An Post by legislation

It is also important that the methodology allows for all changes in costs and revenue that might arise as a result of the USO (in comparison to the reference scenario). This will include the impact on demand, seen through a change in volumes. In addition, section 35(5) of the 2011 Act requires ComReg, upon receipt of a funding application from An Post, to determine the extent to which the universal postal service is being provided in a cost-efficient manner. As such, it is essential that the chosen methodology allows for an adjustment to be made to costs and revenues to reflect the fact that current costs and revenues associated with the USO may not be equivalent to that of an efficient operator.

Finally, the methodologies should be compared in relation to precedent for their use across Europe by other USPs and NRAs, along with the purpose of such use.

This section provides a comparison of the three methodologies in relation to each of these aspects.

3.2.1 Complexity of the reference scenario

We start by comparing the methodologies in relation to the reference scenario that they allow, as summarised in **Table 2**.

The DA approach differs from the other two in that there is no explicit reference scenario. There is no analytical exercise that defines what the USP would choose to do without the USO. However, it could be argued that the DA approach includes an implicit reference scenario that says absent the USO, the USP would stop providing all USO products whilst continuing to provide all non-USO products via an unchanged network.

In the case of the NAC approach as it has been applied in post to date, the counterfactual scenario can be interpreted as the USP ceasing to provide all loss-making USO "mail flows", and continuing to provide all non-USO products together with profitable USO mail flows via an unchanged network.

The PC approach assumes that in a competitive market, the USP would seek to reorganise its operations absent the USO in a way to "maximise its profits". This may include removing elements of USO products that are loss-making as under the NAC. But importantly, the USP would also be expected to seek further changes in its operations to minimise costs.

Table 2. Behaviour of the universal service provider without the USO (counterfactual)

Features of methods	DA	NAC	PC
Remove whole of USO	Yes	No	No
Remove elements of USO products	N/A	Yes	Possible*
Relax provision constraints for remaining services (e.g. delivery frequency)	N/A	No	Yes
Relax pricing constraints	N/A	No	Yes
Relax quality constraints	N/A	No	Yes
Changes in USP's operation and network (for instance re optimising the network)	N/A	No	Yes
Changes in demand for USP's "remaining" products	N/A	Not done to date but possible	Yes
Changes in market share of USP	N/A	No	Yes

Source: Frontier Economics

*For example, a universal service provider absent the USO may decide to provide a daily newspaper service to urban areas only and remove the delivery of newspapers in rural areas. Hence the USP would remove elements of this USO product, hence the term "possible" in the table.

3.2.2 Ability to take account of all changes from the USO and efficiency adjustments

Second, we can compare methodologies in relation to whether they provide the ability to take account of all changes arising from the USO (e.g. demand effects) and the ability of take account of efficiency.

The DA approach, as it is based on accounting costs, does not take into account the impact on existing demand flows if the USO services were no longer provided and initially assumes current efficiency levels. Under this approach, any efficiency adjustments would need to be carried out ex-post and would entail coming to a view on the proportion of the costs associated with delivering the USO that are inefficient.

The alternative approach, an ex-ante adjustment of costs for efficiency, could lead to misleading estimates of the net cost of the USO without an adjustment to revenues. This is because it would create artificial improvements in margins/ profitability, which could not necessarily take place in a fully competitive market. In practice, only one USP has considered cost efficiency under the DA approach, no efficiency adjustment was subsequently made as it was considered difficult to establish the appropriate level of adjustment.

The methodology of the NAC approach, although based on the concept of avoidable costs, does not specify that this should be the costs avoided by an efficient operator. In fact, the actual application is based on accounting costs, Therefore, as with the DA approach, any efficiency adjustment would need to be made ex-post. Again, this would entail coming to a view on the proportion of the costs associated with delivering the USO that are inefficient. In practice, two USPs have made such adjustments. Demand effects are not excluded under this methodology, but they have not been implemented so far in practice.

The PC approach explicitly includes demand effects and efficiency adjustments. Efficiency adjustments can either be made ex-post, as with the DA or NAC approach, or ex-ante under the PC approach. An ex-ante adjustment can be made if bottom up modelling is used. Such modelling can explicitly demonstrate the costs faced by an efficient operator under both the base case and reference scenario. As discussed in more detail under section 4.2.3, the choice of accounting data or bottom up model will depend largely on the extent to which the reference scenario departs from the current USO. In practice, efficiency adjustments have more often been considered by USPs under the PC approach than DA and NAC.

3.2.3 Precedent for use

Finally, it is important to consider the precedent for use of each of the methods. Despite the PC approach being the most data intensive (given the richness of the counterfactual), it is the most commonly chosen approach to calculating the net cost by USPs and NRAs alike. It has been applied in practice in Denmark, UK, Norway, Slovakia and the Netherlands.

Both the DA and NAC approaches have both been used in the past and replaced by other methods. For example, the USP in Norway has previously used the NAC approach and now uses the PC approach. In Norway, it was felt that general drawbacks of the NAC-model were that it did not take into account a realistic commercial counterfactual and that the final result depended on the chosen breakdown of data.

Likewise, the USPs in Italy and Belgium used the DA approach annually from 2002-2010. The calculations for 2011 are on hold and will be based on new methodologies following the transposition of the 3rd Postal Directive in Italy and Belgium.

3.3 Recommended methodology

In our view, the most appropriate methodology for determining the net cost of the USO in Ireland is the PC approach. In particular, we find that the PC approach:

- Can capture the full complexity of a reference scenario. This approach is not restricted by the status quo and allows for the modelling of a whole host of potential changes that an operator could make in the absence of the USO or certain aspects of it. The PC approach can model not only the potential withdrawal of certain USO products, but importantly can also capture the effects of removing or relaxing specific elements of the USO.

- Can take account of all changes arising from modifying the USO. This includes direct effects on demand, costs and market shares arising from changes in the USO

- Is better at taking account of efficiency. This is important as the net cost calculation should not include the impact of inefficient operation in order to better comply with Annex 1 of the Directive 97/67/EC.

- Is an established methodology which has been widely used in Europe, in some cases in the context of a funding application. This methodology has already been applied in practice in Denmark, UK, Norway, Slovakia and the Netherlands.

4 Recommendations on implementing the PC methodology to assess the net cost of the USO

In the previous chapter, we recommended that ComReg adopt the profitability cost methodology as the appropriate methodology to assess the net cost (if any) of the USO.

Under the PC methodology, we are seeking to answer the following key question:

> **How, in the absence of the USO requirement, would changes to the service specification previously provided under the USO or the removal of the USO services entirely affect the costs and revenues of An Post (if it were operating efficiently)?**

To answer this question, the PC methodology is based around two key steps:

1. **Identification of an appropriate reference scenario:** in the reference scenario the USP faces no binding constraint as to the services it offers. The reference scenario therefore seeks to identify the changes to the current service provision that an operator would make if it were operating on an unconstrained commercial basis.
2. **Identification of the change in costs and revenues (and hence the change in net profit) between the baseline scenario and the reference scenario:** To assess the net cost of the USO, one then compares outcomes in the reference scenario to outcomes in the baseline (USO) scenario. It is important to note that this is about more than just logging up the cost savings the USP would make as a result of changes to service provision. One must also calculate the revenues that would be foregone as the product offering is amended relative to the base case. Both direct and indirect demand effects are expected to impact revenue in this alternative scenario. The direct effect is the demand loss for products which would no longer be provided. The indirect effect is the impact of a change in one service on the demand for the other products of the USP.

In the following sections we set out our recommendations to ComReg regarding the appropriate implementation of both these steps. In particular, we set out recommendations as to the appropriate level of analysis and evidence required to support the implementation of both the above elements of the PC methodology.

An essential factor to bear in mind when implementing both of these step, is that the costs and revenues considered in the net cost calculation must represent those of an efficient operator. As set out in the previous section, the PC approach allows an efficiency adjustment to be explicitly taken into account. Here, it is useful to think about what this efficiency adjustment is trying to achieve. In essence, there are two main reasons why the costs that An Post faces in the provision of the USO may be higher than the revenues it receives:

- inefficiency; and/or
- the USO is imposing a net cost as the efficient costs of its provision are not being covered by the current revenue level.

Any net cost calculation must therefore aim to separate out these two effects, and quantify only the latter.

4.1 Developing the reference scenario

As noted above, the first step, and possibly the most important element, is the development of a reference scenario. This scenario should set out the realistic counterfactual service offering that An Post would continue to provide if the USO constraint were to be removed. It implicitly acknowledges that even without the constraints imposed by a USO, An Post would continue to run a postal business, albeit one that offers a different set of products and one configured on a different basis.

In developing guidance for the reference scenario, we suggest that ComReg must:

- determine whether it should allow the USP to set the reference scenario or whether ComReg should specify the reference scenario;
- in the event that the USP is setting the reference scenario, outline the degrees of freedom the USP may have in altering the service it provides, and the evidence required to support the proposed reference scenario.

4.1.1 Who should determine the reference scenario?

ComReg must determine whether it should allow the USP to set the reference scenario or whether ComReg should specify the reference scenario. We suggest that it is important that the strategy be informed by An Post's in-depth commercial knowledge, and that it is important that it reflects how An Post would seek to reorganise its operations absent the USO in a way to maximise its profits.

As a result, we believe that the universal service provider is best placed to do this. We would therefore recommend that An Post takes responsibility for developing such a reference scenario. Below we provide guidance on the factors An Post should consider when setting the reference scenario.

4.1.2 Guidance to An Post on the factors it should consider in developing the reference scenario

The objective of the reference scenario is to provide a reasonable estimate of what An Post's service offer would look like in the absence of the USO. It is therefore essential that this is based on an assessment of the service offer that would be most profitable for An Post. The challenge in devising such a scenario is that it cannot be known with certainty what service offering would in fact be profitable in the absence of the USO, and therefore what the operation of An Post would be in this case.

In theory, there could be a large number of reference scenarios (as many of the individual or combined obligations could be removed). However, in practice we suggest the possible scenarios that An Post could choose are more limited.

We suggest that the possible variations in An Post's current service offering can be grouped into two categories, which should be considered sequentially in the order illustrated in **Figure 2**. Note, we also discuss guidance in relation to the type of price change that An Post should consider as part of the reference scenario below.

Figure 2. Possible variations to An Post's current service offering

Source: Frontier Economics

Change in the operation of USO services

First, An Post should consider what changes could be made to the operation of USO services that would increase the profitability of those services currently deemed by An Post to be unprofitable.

Here the reference scenario may assume different modes of providing postal services to those specified in the USO. For instance:

- changes in the number of collections and deliveries per week;
- changes to the number of access points for collecting mail; or
- changes to the points at which the mail is delivered.

These changes may vary on a geographic basis. For example, An Post may decide to vary the number of collections and deliveries per week by area of the country, making reductions in more rural areas of the country that are currently unprofitable to deliver to.

An Post's reference scenario plan will specify what changes, if any, it would make in relation to each of the above. It will also highlight any geographic differentiation to each service element that would be introduced. For each service element that An Post proposes to alter under the reference scenario, it must provide high level commercial rationale. **Table 3** provides a template for the format that this rationale might take and the areas that should be covered.

Table 3. Template for required high level rationale for each service element alteration under the proposed reference scenario

Service element	Current provision	Proposed alteration	Commercial rationale
e.g. Collections and deliveries per week	Five days		
e.g. Class of mail	First class (D+1)		

Removal of services

If it is not possible to make a profitable service offering based on changes to the operation of USO services, then An Post may then want to consider the removal of services altogether. Here the reference scenario may assume, for instance that:

- a particular USO service (or group of services) would be removed from the service offering entirely;
- the delivery of selected USO services would not be provided in specific geographic areas;
- the delivery of any USO service would not be provided in specific geographic areas; or
- there would be no delivery of any postal service in a given geographic area.

Again, An Post's reference scenario plan will specify which services, if any, it would remove from its service offering. It will also highlight any geographic differentiation that would be introduced. An Post must also provide a commercial rationale for each service removal that it proposes to make under the reference scenario. **Table 4** provides a template for the format that this rationale might take and the areas that should be covered.

Note, where An Post seeks to remove services on a geographic basis, we suggest it will be important that they demonstrate that less radical alterations to the service being provided are unprofitable. For example, if An Post were to suggest that it would not serve a particular geography at all, it would be important that it demonstrate that even a reduced service (e.g. one delivery and collection per week) would be unprofitable.

Table 4. Template for required high level rationale for the removal of services under the proposed reference scenario

Services	Current provision	Proposed alteration	Commercial rationale
e.g. Bulk mail services	Two universal bulk mail services: 'delivery only' for mail sorted by delivery office, and 'deferred delivery'. The remainder of bulk mail services fall within the scope of the USO.		
e.g. Weight restrictions on services	Postal items up to 2kg Postal packages up to 20kg		

Consideration of price changes as part of the reference scenario

Note, we have considered whether the reference scenario should be allowed to include both changes to the *level* of prices and changes to the *structure* of prices, and in particular a move away from uniform prices that are independent of geography to, for example, a more complex zonal system where price is based on collection zone and delivery zone and zones are dependent on geography.

Changes in the price level of An Post's products would clearly be feasible and our guidance is that changes to price levels should be allowed for consideration in the reference scenario, once An Post has:

- made the sequential changes to the USO offering described above; and
- demonstrated that it is including only efficient costs in both the current and reference scenarios.

An Post would then also need to take into account the impact of higher prices on:

- customer demand – if a significant price increase were being considered outside the range of changes identified in the past, we suggest An Post would need to provide substantial sensitivity testing around its demand assumptions;
- an acceleration in e-substitution; and
- an acceleration in entry by competitors.

Allowing consideration of a change in the *structure* of prices, and in particular a move away from uniform pricing, is more problematic, given our current conceptual approach to the reference scenario and the treatment of the benefit currently afforded to An Post through the VAT exemption on USO services.

Our recommended approach is that ComReg should assume that a universal service obligation would apply in both the baseline scenario and in the reference scenario. Consequently, it is assumed that the reference scenario represents a reduced USO that the USP must meet. We believe that this treatment is appropriate given the provisions of the current Act. It also minimises the complexity and supporting evidence that An Post would be required to provide if the reference scenario did not represent a USO, even a reduced one.

In particular, section 16 of the 2011 Act allows for a relaxing of the universal service obligations in circumstances or geographical conditions that ComReg considers to be exceptional[7]. However, section 28(2)(a) of the Act would still apply. This requires a uniform tariff to be applied throughout the State to any postal service provided at a single piece tariff. Pursuant to section 28(2)(b), to remove this requirement would need prior consent of the Minister.

Therefore, if a move away from uniform prices to negotiated prices were to be considered as part of a reference scenario, the reference scenario would be a non-USO scenario rather than a less constrained USO scenario. In consequence, in the event of a move away from uniform pricing to negotiated pricing, An Post will no longer benefit from being VAT exempt.

Note, we also consider that a change to the price structure away from uniform pricing is such a fundamental change to the product offering that it is likely to lie

7 Section 16(8) of the 2011 Act requires ComReg to notify the Minister, the European Commission and the national regulatory authorities in all Member States.

outside the range of commercial strategies than an operator would consider to be feasible or profitable. We also suggest that such a move would lead to substantial customer disruption and could impose substantial additional costs on An Post. We therefore recommend that An Post be required to provide detailed supporting evidence to underpin the validity of any reference scenario that includes changes in the structure of the price for a particular product.

In particular, we recommend that An Post be required to provide evidence in relation to:

- the additional costs it would incur in moving away from uniform pricing;
- the potential customer disruption it would cause, and the likely loss of brand value to An Post;
- the likely impact of entry by competitors;
- the likely impact on demand for mail services where the move away from uniform pricing has led to a substantial increase in price;

If the removal of uniform pricing were to lead to negotiated prices for some products, these products would no longer be universal postal services. As such, further evidence would also be required in relation to the impact of the related loss of the VAT exemption. In particular:

- the proportion of customers that would be affected by the loss of VAT exemption (e.g. all customers who would have to pay the higher VAT but could not reclaim it, which includes all domestic customers financial services customers and charities)
- the demand and revenue impact associated with an effective 23% price increase for this group; and
- the impact on e–substitution and competition associated with such an effective increase in price.

Finally, we also suggest that if ComReg were minded to allow An Post to consider variations from uniform pricing it should only be after all variations listed in the Figure above have been exhausted.

4.2 Guidance on calculating the net cost of the USO

Once the reference scenario has been identified and agreed, the next step is to calculate the net cost of the USO. The net cost seeks to measure:

- revenues foregone by modification of the universal service;
- costs avoided by modification of the universal service; and

- (ideally) the change in the value of indirect benefits that result from the modification of the universal service.

To measure the first two of these effects, it is critical to understand how volumes, market shares and costs depend on service specification.

- **Volumes:** volumes will change if customers send less mail as a result of service specification changes, or switch to different products. One can estimate the magnitude of the impact for different mail products with reference to statistical and survey evidence, and through a survey process with key stakeholders.

- **Market shares:** One must consider the possibility that service changes would lead to direct changes in market shares – for example, alternative operators could start delivering if An Post dropped a service. One must also consider the indirect impact on market entry from mail volumes switching from less contested parts of the market to more contested parts of the market.

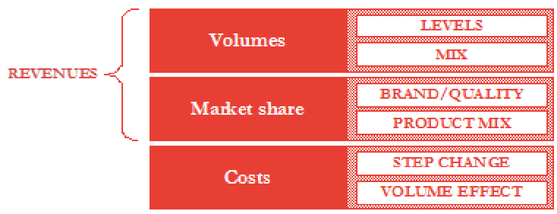
- **Costs:** It is necessary to develop an in-depth understanding of the costs of key pipeline activities including indoor and outdoor delivery, mail centres, collections and the transport network (e.g. the routes and timing of road) in order to estimate step changes in costs in response to service changes and to estimate the impact of volume changes on costs.

The Figure below sets out this relationship. It is important to note that:

- the estimates of volumes and market shares will impact directly on the revenues generated in the reference scenario; and

- the estimates of volumes and market shares are an input into the calculation of costs in the reference scenario.

Figure 3. Calculation of the net avoided cost of the USO



In the sections that follow we set out recommendations on the appropriate methodology to be employed by An Post in calculating each of the above three elements. In particular, we highlight our recommendation that An Post's estimate of net costs should be based on an integrated and internally consistent set of models that assess how volumes, market shares and costs depend on service specification.

We also discuss the extent to which An Post may also be required to capture the change in the value of indirect (intangible and market) benefits that result from the modification of the universal service.

We note that the analysis and effects described above relate very much to the first round effects of changes to the specification, before any changes in cost are taken into consideration. However, in theory, for any given net avoided cost derived from the first round, it is relevant to consider the impact on prices. Given that An Post is regulated, one could assume that the full net avoided cost is passed through to customers in the form of lower prices. One could also assume that costs and revenues are recovered from groups of products according to the broad pipeline component in which costs were incurred. The new prices will have a demand impact of their own as customers respond via a price elasticity effect. In turn, the new demand levels will affect costs (only via a volume effect in this case). We note, however, that such effects are likely to be challenging to capture, and are unlikely to change materially the overall level of the net avoided cost. In consequence, we suggest that ComReg may not wish to mandate that a net cost submission to include the calculation of such second round effects.

In the remainder of this section, we set out our recommendations as to the methodology that An Post should employ to calculate each of:

- volume effects;
- market share effects;
- costs; and
- intangibles and market benefits.

We finally summarise by setting out how An Post should bring the elements of analysis together to calculate the net cost of the USO.

4.2.1 Volume effects

One consequence of changing the service specification is that customers may send less mail. For example, if An Post were to move to a D+3 service, reduce the number of days on which it delivered mail or change its offering on a geographic basis one would expect the volumes of mail to change. It is important to estimate the impact of changes in volumes because:

- it will impact directly on the revenues An Post can expect to generate;
- it will also be likely to impact on the costs An Post will incur.

In order to estimate the likely volume effects, the analysis will need to:

- establish what volumes are in the base case; and
- set out how volumes might be expected to change as a result of moving to the reference scenario[8].

Base case volumes

To establish the base case volumes, actual volume data from the financial year to which the funding request applies should be used. Ideally, this would be on as disaggregated a basis as possible. At the very least, this information should be broken down by:

- product;
- format e.g. letter, flat, packet or parcel;
- weight step; and
- some form of geographical measure, whether this be geographical area or zones based on population density characteristics.

All volume information should be presented in a way that allows it to be mapped to the key parts of the pipeline: collections, mail centres and transport, and delivery. Volumes should also be broken down by day of the week.

Volumes in the reference scenario

Once the base case has been established, the next step is to estimate what would happen to volumes and costs under a move to the reference scenario.

The aim of this is to identify the likely demand response of customers to the changes in service specification. In estimating the volume effects associated with a move to the reference scenario, it is important to recognise that there will be a reasonable level of uncertainty associated with the estimates. The level of accuracy of the estimation is likely to be particularly affected by the fact that the service offering under the reference scenario will not have been experienced before in Ireland, and there is therefore no directly relevant historical information that can be used to estimate demand effects. In this context, it will be particularly important to ensure that appropriate scenario analysis and sensitivity testing is undertaken to assess the robustness of the results.

We suggest that it will be necessary for An Post to combine information from a range of sources. This should be guided by a "pyramid approach", as used previously in the UK. Such an approach ranks alternative information sources:

---

8 Note: Section 4.2.2 discusses potential market share effects, which will also take account of volume effects.

- direct evidence of revealed preference, e.g. econometric or other statistical evidence which estimates demand elasticities, should be given a strong weighting;
- evidence of stated preference, e.g. survey data on customer preferences for postal products and switching between or for particular elements of the USO, should be ranked second; and
- qualitative evidence, e.g. from interviews with mail users, should be ranked third.

We discuss each below.

Direct evidence of revealed preference

With respect to direct evidence An Post should consider the feasibility of estimating quality of service elasticities. Such elasticities seek to estimate how mail demand varies in response to changes in quality of service. Calculation of quality of service elasticities is similar to calculation of price elasticity, and requires a combination of volume data and metrics on different aspects of quality of service.

Survey evidence

To supplement any quantitative evidence, An Post should also seek to develop survey evidence to measure customer preferences for postal products and different elements of service quality. The purpose of such evidence is to identify the elements of the universal service that are more important than others from a customer perspective, and to understand the extent to which different types of customer place a different value on various service features.

Interviews

Finally, An Post may wish to carry out interviews to develop a more qualitative understanding of how mailers could react to changes in service specification. For example, for large customers in particular, a key issue could be to understand the extent to which changes in the service specification could lead to an acceleration of e-substitution.

Sensitivity testing

As noted above, it is likely that there will be a level of uncertainty about the demand estimates An Post derive. Consequently, it will be important that An Post run a set of scenarios around the central estimates to assess the sensitivity of results to different assumptions.

4.2.2 Market share effect

In addition to estimating the demand effects associated with changes in service specification, it is also important to take into account any potential market share effects. For example, if demand for a particular product switches in response to a modification of the universal service, then the new mail product may be more or less contestable than the mail product the customer was originally using. Consequently, An Post would face not only a direct demand effect, but also potentially a market share effect. For example, if An Post was to reduce its QOS or move away from a D+1 service, large mailers might consider alternative mail providers (e.g. bulk mail providers) who can provide an equivalent level of service to that provided by An Post in the reference scenario.

It is also important to consider the possibility that some universal service modifications may cause a more profound effect upon An Post's position in the market.

This might be characterised either as:

- major changes that fundamentally alters the perception of An Post relative to competitors; or
- changes that disproportionately affect An Post's service quality relative to rivals.

Given the current development of competition, it is again important to recognise that there is likely to be substantial uncertainty attached to any estimates of market share impact. Moreover, given the lack of historic data on customer switching in the market, we suggest it is unlikely to be possible to undertake any statistical modelling of market share effects.

Rather, we suggest that a qualitative analysis be undertaken which:

- assesses the extent to which the move to the reference scenario makes market entry and/or customer switching more likely; and
- assesses case study evidence on the evolution of competition in other markets to identify the potential magnitude of such effects.

On the basis of the above qualitative analysis, we recommend that scenario analysis is developed to estimate the potential impact of market share effects on volumes.

4.2.3 Costs

The third key element associated with estimating net cost is the estimation of costs in the base and in the reference scenarios.

When considering the estimation of costs, there are two key points to note:

- That the purpose of the assessment is to pick up only those changes in cost that are associated with the USO – in particular changes in cost that might be categorised as 'efficiencies' which could arise in the absence of changes to the USO should not be captured; and

- when considering the net cost of the USO, the Act is clear that the assessment should be based on the net costs of an efficient operator. So to the extent that any net cost identified is higher as a result of inefficiencies, the net cost should be adjusted to take account of those inefficiencies.

To ensure that only the net costs of the USO are calculated, we suggest that it is critical therefore that the estimate of cost differences between the baseline and reference scenarios is on a like-for-like basis reflecting only differences associated with changes in the service specification.

In developing cost estimates, we suggest that there are three critical decisions to be taken:

- whether the analysis is based on a model, accounting data or a mix of both;
- if a model is required, the relevant coverage for the model; and
- if a model is required, the relevant cost standard for the modelling (i.e. whether it should be undertaken on a LRIC or FAC basis).

We address each in turn below.

Should the analysis be based on a model, accounting data or a mix?

In principle there are two options to estimate the costs of providing the USO:

- the use of cost accounting information; and
- the construction of a bottom-up model to estimate the costs of providing the USO by a hypothetical efficient operator.

In thinking about which is the more appropriate, it is important to consider the type of costs change that will arise from the move from the baseline to the reference scenario:

- volume effect; and
- step change.

The volume effect has been described above, and results from the likely decline in mail volumes that may arise in response to changes in the service specification. The step change effects arise because the changed service specification may allow mail to be handled in a different way leading to a new set of costs (for example reducing the number of delivery days or moving away from a D+1 service, is likely to allow a substantial reconfiguration of mail centre and delivery activities). We suggest that An Post's accounting data is likely to be able to inform on the cost effects of changes in volume (although it will not provide any view as to the relative efficiency of operations).

However, we suggest that the accounting data is unlikely to be suitable to form the basis of estimates of step changes in costs:

- first, the accounting data is simply not designed to estimate the costs of running the business with and without the USO. This even applies to activity based costing models which are often used to describe the costs of undertaking each pipeline activity and which do not relate explicitly back to each USO component. For example, costs may not be geographically disaggregated in the accounts, which limits their usefulness in evaluating the NAC of delivering in rural areas. Even if costs are disaggregated geographically, they may not always be sufficiently broken down by format (letter, flat, packet), payment method (stamp, bulk etc.) and weight-step to allow meaningful estimates to be produced. These accounting models do not, therefore, provide the comprehensive set of cost drivers across all meaningful components of the USO, and therefore limits the **relevance** of the estimates.

- second, to the extent that the accounting models do estimate cost elasticities associated with modifying or removing the USO, these are short run in nature and do not encompass the effects of re-optimising operations without a USO. This limits the **accuracy** of the estimates.

- third, even if the costs and processes are accurately modelled in the financial models the estimates may not represent the optimal level of operational **efficiency** (due, for example, to excessive use of inputs or if input prices are too high); and

- fourth, even if relevant, accurate and efficient elasticity estimates can be drawn from accounting information, these may still not be the basis for policy making because they simply describe the operational processes that the USO provider has in place at that time. Consequently, the accounting data would not reveal the fundamental cost drivers of the USO, simply the cost drivers deriving from the particular processes and activities chosen by the USO provider to meet its obligations.

In consequence, we suggest that the choice of accounting data or bottom up model will depend largely on the extent to which reference scenario departs from current USO. The more significant the departure, the more likely that there would be a step change in costs (e.g. significant re-design of mail flows, delivery network, mail centre network) and the more difficult it would be to estimate costs based solely on historic accounting data.

In consequence, we recommend that if the reference scenario is likely to lead to a step change in costs, then it will be necessary to develop a bottom up model to estimate the costs in the reference scenario.

This then gives rise to the question of whether the costs in the baseline (i.e. the current USO) should be based on actual accounting data or on a bottom up model. We suggest that there is a significant concern that using a mix of actual data and modelled estimates for comparison of the baseline and the reference scenarios could give rise to a mixing up of efficiency effects with USO net cost effects. For example, consider a scenario in which an efficient operator would utilise three rather than four mail centres in both the baseline and in the reference scenario. Use of accounting data for the baseline would show the use of four mail centres. However, a bottom up model would show the use of three mail centres and would attribute this to the move from the baseline to the reference scenario, when in fact an efficient operator would also have utilised three mail centres in the baseline. In consequence, the estimate of the cost of the USO might substantially over-state the true cost.

We recommend therefore that if An Post is going to model costs in the reference scenario, it is essential to model costs in the baseline, so that cost comparisons are conducted on a like-for-like basis, taking account only of cost differences that arise as a result of changes in the specification of the universal service.

We note that this does not mean that the accounting data will be redundant. Rather, it will be an important input into the bottom up cost models, and one would anticipate that a key element of the calibration of the bottom up model will rely upon comparison of modelled and actual cost.

Coverage of the bottom up model or models

It is important to ensure that the model provides enough granularity to reflect the cost impact of moving from the current USO baseline to the reference scenario. In this regard, it will be important that the model is able to:

- estimate the cost changes associated with changing postal volumes; and
- estimate step changes in costs arising from changes in service specification.

Given the likely changes that An Post may identify as part of the reference scenario, we recommend that to be able to estimate cost step changes An Post should develop (or adapt, if An Post already has such a model in place) a bottom up operational cost model, containing at least the following modules for different parts of the pipeline (although the modules are linked by volumes and other operational constraints):

- **Collections:** changes in the universal service potentially affect the timing of collections, the number of collection rounds per day and the number of collections per week. The constraints may be direct (e.g. at least one collection per day) or indirect (e.g. collections are required throughout the day to enable smooth workflows at mail centres).

- **Mail centres:** the constraints of having to provide a D+1 service with a set quality of service may require An Post to have a larger number of mail centres than would otherwise be the case, while the universal service requirement for a five day delivery service affects the days on which the network needs to operate.

- **Feeder services:** these are connecting services between collection hubs (where collections are aggregated) and mail centres, or between mail centres and delivery offices. The cost of services will depend on the number of days that collections and deliveries take place.

- **Deliveries:** changes to the universal service determine the number of days on which deliveries operate and (indirectly) the number of delivery routes. Both these factors will affect indoor (i.e. mail preparation) and outdoor delivery costs. Timing constraints may also force shorter or more frequent delivery runs than An Post would wish.

To accompany the quantitative estimates of how costs could change in the reference scenario compared to the baseline, we recommend that An Post also be required to provide a qualitative analysis and detailed commentary which describes how operations and workplans could change in response to each element of change in the definition of the universal service in the reference scenario. Quite clearly, a number of possibilities exist to reconfigure operations in the light of a changed universal service specification, and it will be important for An Post to set out the commercial justification for its proposed reconfiguration.

Cost concept

An issue that has arisen in the implementation of net avoided cost methodologies is the choice of cost concept, and in particular whether the analysis should be based on LRIC or FAC. We note that this may be an artefact of the use of accounting data for the implementation of net cost tests.

The LRIC of an increment of output is the additional cost that an operator would incur for providing that increment in the long run. When the increment of output is the total demand for a given service, the LRIC is also known as Total Service Long Run Incremental Cost (TSLRIC) or Long Run Average Incremental Cost (LRAIC).

The FAC of a service is the cost of providing that service when all the operator's costs are allocated across all services. In other words, the fully allocated cost of a service includes all costs that have a causal relationship with that service (i.e. costs that would be avoided if this service were not provided) but also a share of the operator's common costs.

From a methodological point of view, the PC approach seeks to identify the avoidable costs that would be saved as a result of changes to the universal service specification. The concept of avoidable cost is more closely related to the concept of LRIC. This is a result of the fact that LRIC excludes fixed and common costs associated with an increment of output, whereas FAC does not. In reality, the universal service provider would still need to pay such costs even if volumes fell as a result of a move to the reference scenario. Consequently, we recommend that the bottom up operational model be based on LRIC.

4.2.4 Guidance on taking intangible and market benefits into account

There is no single definition of intangible or market benefits. According to a recent study[9] *"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 it the universal service provider's net cost calculation."*

A number of intangible benefits have been considered in the literature (for a more exhaustive list see the Annex). Some of the key benefits include:

- Brand value: higher sales due to positive impact of brand plus better customer retention and acquisition (ubiquity);
- Demand complementarity: higher sales of non-USO products as complement to the sale of USO products.

In accordance with the theoretical framework of the PC approach, all USPs or NRAs who have applied this methodology for a possible compensation claim need to consider the impact of intangible benefits in their net costing of the USO.

The current profitability of the USP (base case) reflects the intangible benefits attributable to the USO. As the USO changes under the reference scenario, consumers who value products provided under the USO banner may reduce their demand and/or choose alternative providers. The move from base case to reference scenario effectively reduces volumes and market shares.

In theory one could model intangible benefits and how they might change as the USO changes. However, by their very nature, intangible benefits are difficult to

9 ARCEP, "Definition, classification and methodology for evaluating intangible benefits related to universal postal service", from WIK consult, published 2010

quantify so modelling them in practice is difficult to do[10]. Rather, we suggest that as part of the market share analysis described earlier, An Post consider the extent to which:

- its brand and status as USP is likely to have a chilling effect on customer switching; and
- consider a market share scenario in which it was required to 'rebrand' and so would no longer have name recognition as the USP.

A separate issue that arises in relation to market benefits is whether the VAT exemption of the USO should be treated as a market benefit. Conceptually, our recommended approach to dealing with this issue is to assume that a universal service obligation would apply in both the baseline scenario and in the reference scenario. Consequently, this approach assumes that the reference scenario represents a reduced USO that the USP must meet. However, as discussed in more detail in section 4.1.2 above, this approach would not be possible if the reference scenario included a move away from uniform pricing to negotiated prices for single piece mail. In this case, An Post would no longer enjoy the VAT exemption on USO products that currently applies. As such, a proportion of customers would not be able to reclaim the VAT paid and would therefore effectively face a 23% increase in price. More specifically, the following customer groups would not be able to reclaim the VAT paid:

- VAT exempt organisations (such as financial services, charities and government departments); and
- residential customers.

The bottom up operational cost model would therefore need to take account of the impact of this in the reference scenario. In particular, it should consider the full impact of this price increase on:

- costs;
- market share and how this may evolve if the price increase encourages entry of competitors;
- An Post's brand and status as USP;
- volumes and product mix, i.e. the price elasticity of demand and possible cannibalisation of volumes; and

10 Existing research suggests that the main ways to model these benefits is through Economic modelling and consumer surveys. According to ARCEP ("Synthèse des principaux résultats de l'étude confiée au cabinet WIK-Consult pour le compte de l'ARCEP") brand value can be captured through conjoint valuation surveys while economies of scale are best tackled through cost modelling. In general all quantifications of intangibles need to be tailor-made to the specific benefit under evaluation.

- the speed of e-substitution, particularly because one of the advantages that mail currently has over electronic alternatives is the ability to service the whole population.

4.2.5 Calculating the net cost of the USO

Once An Post has carried out the analysis above, the final step is to calculate the net cost of the USO. To do so, An Post should:

- compare revenues in the baseline year, at current prices, to modelled efficient costs in the baseline[11];
- compare revenues in the reference scenario, which have been adjusted to reflect volume changes and market share effects, with modelled efficient costs in the reference scenario;
- the net cost of the USO is the difference between the two figures.

We have considered whether under the PC approach, an additional adjustment should be made to make allowance for a reasonable profit for the USP[12].

Under the PC approach the USO net cost is determined by comparing the operating profits of the USP with the USO in place, assuming efficient costs, and the operating profits under a counterfactual scenario where the operations of the USP are re-optimised assuming that the USO was removed, again assuming efficient costs. Taking "reasonable profits" into account requires the relevant appropriate capital costs to be deducted from the operating profit under the base case, and the operating profit under the counterfactual. This then becomes a comparison of net profits, rather than operating profits – see below:

$$\text{Net cost of USO} = \text{Net profit}_{\text{w/o USO}} - \text{Net profit}_{\text{w/ USO}}$$

$$= (\Pi_{\text{w/o USO}} - CC_{\text{w/o USO}}) - (\Pi_{\text{w/ USO}} - CC_{\text{w/ USO}})$$

Where: Π = operating profit; w/o USO = without USO; w/ USO = with USO; CC = capital costs

The PC methodology can in principle take into account movement in the capital employed and the WACC. However, we suggest that this may not have a material impact on the level of the net cost of the USO. If the level of capital employed is not materially affected by the removal of the USO, and the WACC can also be considered to be largely unchanged, then the difference between the cost of capital under the base case and the counterfactual will not be significant.

---

11 We are assuming here that the reference scenario will be sufficiently different from the baseline that the development of a model will be required.

12 This issue was discussed at length in Frontier's Report for the EC entitled "Study on the principles used to calculate the net costs of the postal USO"

Given the labour intensity of postal operations, it is likely that the reduction in capital employed following the removal of the USO would be relatively limited. Consequently, we recommend that under the PC methodology no adjustment is required to make allowance for a reasonable profit.

Pursuant to section 35(4)(a) of the 2011 Act, ComReg shall then, on the basis of the information provided by An Post, determine whether the provision of the USO by An Post represents a net cost to An Post.

5 Summary of recommendations

This section summarises our recommendations on the form and manner that any net cost submission should be made by the universal service provider. It is structured as follows:

- our recommendations around the appropriate methodology that should be adopted; and
- our recommendations around how this methodology should be applied in practice.

5.1 Net cost methodology

The first step of this paper compared the methodologies that could be used to calculate the net cost of the USO (DA, NAC and PC) in an Irish context. In our view, the PC approach for determining the net cost of the USO is the most appropriate. In particular, we find that the PC approach:

- Can capture the full complexity of a reference scenario. This approach is not restricted by the status quo and allows for the modelling of a whole host of potential changes that an operator could make in the absence of the USO. The PC approach can model not only the potential withdrawal of certain USO products, but importantly can also capture the effects of removing or relaxing specific elements of the USO.
- Can take account of all changes arising from modifying the USO. This includes direct effects on demand, costs and market shares arising from changes in the USO
- Is better at taking account of efficiency. This is important as the net cost calculation should not include the impact of inefficient operation in order to better comply with Annex 1 of the Directive 97/67/EC.
- Is an established methodology which has been widely used in Europe, in some cases in the context of a funding application. This methodology has already been applied in practice in Denmark, UK, Norway, Slovakia and the Netherlands.

5.2 Application of the recommended methodology

The PC methodology is based around two key steps:

1. **Identification of an appropriate reference scenario**.

2. **Identification of the change in costs and revenues (and hence the change in net profit) between the baseline scenario and the reference scenario**

Our recommendations in relation to these two key steps are as follows.

5.2.1 Reference scenario

- We believe that the universal service provider is best placed to determine the reference scenario. We would therefore recommend that An Post takes responsibility for developing such a reference scenario based on its in-depth commercial knowledge.

- Although there could be a large number of reference scenarios in theory, we suggest that, in practice, the possible scenarios that An Post could choose are more limited. In order to determine the reference scenario, we suggest that two categories of variations should be considered sequentially, as illustrated in **Figure 4**.

Figure 4. Possible variations to An Post's current service offering

Source: Frontier Economics

- We recommend that ComReg should not allow consideration of changes in the structure of prices (rather than price level) to form part of the reference scenario as this would represent a fundamental change to the product offering that is likely to lie outside the range of commercial strategies that an operator would consider to be feasible or profitable. If ComReg were minded to allow An Post to consider variations in the structure of pricing, we recommend that it should only be after all variations listed in the Figure above have been exhausted, and ComReg should require substantial supporting analysis from An Post that such a strategy is commercially optimal[13].

- A potential consideration in setting the reference scenario, is the treatment of the benefit currently afforded to An Post through the VAT exemption on USO services. We recommend that, conceptually, this is dealt with by assuming that a universal service obligation would apply in both the baseline scenario and in the reference scenario. Consequently, it is assumed that the reference scenario represents a reduced USO that the USP must meet, which is compliant with section 16 of the 2011 Act. However, such an assumption could not be made if the reference scenario were to include a move away from uniform pricing to negotiated pricing. Such a move would require Ministerial approval under section 28 of the 2011 Act and could no longer be classed as a USO scenario.

5.2.2 Change in revenues, costs and value of indirect benefits that result from a modification of the universal service

In order to measure the first two of these effects, it is critical to understand how volumes, market share and costs depend on service specification. As such, the following sections set out our recommendations in relation to:

  - volume effects:
  - market share effects;
  - costs; and
  - also the extent to which An Post may also be required to capture the change in value of any indirect (intangible or market) benefits that result from the modification of the universal service.

Volumes

- In order to estimate the likely volume effects, the analysis will need to:
  - establish what volumes are in the base case; and
  - set out how volumes might be expected to change as a result of moving to the reference scenario.
- To establish the base case volumes, actual volume data from the financial year to which the funding request applies should be used. Ideally, this would be on as disaggregated a basis as possible. All volume information should be

[13] Section 28(2)(a) of 2011 Act requires uniform pricing. Further Section 28(2)(b) requires prior consent of Minister to remove uniform pricing.

presented in a way that allows it to be mapped to the key parts of the pipeline: collections, mail centres and transport, and delivery. Volumes should also be broken down by day of the week.

- In estimating the volume effects associated with a move to the reference scenario, we suggest that it will be necessary for An Post to combine information from a range of sources. This should be guided by a "pyramid approach", as used previously in the UK. Such an approach ranks alternative information sources:
  - direct evidence of revealed preference, e.g. econometric or other statistical evidence which estimates demand elasticities, should be given a strong weighting;
  - evidence of stated preference, e.g. survey data on customer preferences for postal products and switching between or for particular elements of the USO, should be ranked second; and
  - qualitative evidence, e.g. from interviews with mail users, should be ranked third.

Market share

- It is important to consider that An Post would face not only a direct demand effect, but also potentially a market share effect. In order to estimate the likely impact on market share we suggest that a qualitative analysis should be undertaken which:
  - assesses the extent to which the move to the reference scenario makes market entry and/or customer switching more likely; and
  - assesses case study evidence on the evolution of competition in other markets to identify the potential magnitude of such effects.
- On the basis of the above qualitative analysis, we recommend that scenario analysis is developed to estimate the potential impact of market share effects on volumes.

Costs

The third key element associated with estimating net cost is the estimation of costs in the base and reference case. Here it is important to consider that inefficiency should be taken into account. In particular, the costs included in the net cost calculation should be equivalent to those of an efficient operator so that the net cost excludes and inefficiencies.

In developing cost estimates, we suggest that there are three critical decisions to be taken:

- whether the analysis is based on a model, accounting data or a mix of both;
- if a model is required, the relevant coverage for the model; and
- if a model is required, the relevant cost standard for the modelling (i.e. whether it should be undertaken on a LRIC or FAC basis).

Choice of model, accounting data or mix

- With regards to the first decision, we suggest that the choice of accounting data or bottom up model will depend largely on the extent to which reference scenario departs from current USO. We recommend that if the reference scenario is likely to lead to a step change in costs, then it will be necessary to develop a bottom up model to estimate the costs in the reference scenario.

- The same decision around cost estimation applies to the base case. We suggest that there is a significant concern that using a mix of actual data and modelled estimates for comparison of the baseline and the reference scenarios could give rise to a mixing up of efficiency effects with USO net cost effects. We recommend therefore that if An Post is going to model costs in the reference scenario, it is also important to model costs in the baseline, so that cost comparisons are conducted on a like-for-like basis.

Relevant coverage for any model

- Given the likely changes that An Post may identify as part of the reference scenario, we recommend that to be able to estimate cost step changes An Post should develop (or adapt, if An Post already has such a model in place) a bottom up operational cost model, containing at least modules for the following different parts of the pipeline:
  - collections;
  - mail centres;
  - feeder services; and
  - deliveries.

- To accompany the quantitative estimates of how costs could change in the reference scenario compared to the baseline, we recommend that An Post also be required to provide a qualitative analysis and detailed commentary which describes how operations and workplans could change in response to each element of change in the definition of the universal service in the reference scenario. Quite clearly, a number of possibilities exist to reconfigure operations in the light of a changed universal service specification, and it will be important for An Post to set out the commercial justification for its proposed reconfiguration.

Relevant cost standard for any model

- From a methodological point of view, the PC approach seeks to identify the avoidable costs that would be saved as a result of changes to the universal service specification. The concept of avoidable cost is more closely related to the concept of LRIC (rather than FAC). This is a result of the fact that LRIC excludes fixed and common costs associated with an increment of output, whereas FAC does not. In reality, the universal service provider would still need to pay such costs if even if volumes fell as a result of a move to the reference scenario. Consequently, we recommend that the bottom up operational model be based on LRIC.

Intangible and market benefits

- In theory one could model intangible and market benefits and how they might change as the USO changes. However, by their very nature, intangible and market benefits are difficult to quantify so modelling them in practice is difficult to do. Rather, we suggest that as part of the market share analysis described earlier, An Post consider the extent to which:
  - its brand and status as USP is likely to have a chilling effect on customer switching; and
  - consider a market share scenario in which, hypothetically, it was required to 'rebrand' and so would no longer have name recognition as the USP [14].

A separate issue that arises in relation to market benefits is whether the VAT exemption of the USO should be treated as a market benefit. Conceptually, our recommended approach to dealing with this issue is to assume that a universal service obligation would apply in both the baseline scenario and in the reference scenario. Consequently, this approach assumes that the reference scenario represents a reduced USO that the USP must meet. However, this approach would not be possible if the reference scenario included a move away from

14 Although intangible benefits should be considered as part of the market share analysis, we would expect An Post to remain the USP under the reference scenario and therefore not be required to 'rebrand'.

uniform pricing to negotiated pricing for single piece mail. In this case, if prices were now negotiated, An Post would no longer enjoy the VAT exemption on USO products that currently applies. As such, a large proportion of customers would not be able to reclaim the VAT paid and would therefore effectively face a 23% increase in price. The bottom up operational cost model would therefore need to take account of the full impact of this in the reference scenario.

Net cost calculation

- Once An Post has carried out the above analysis, the final step is to calculate the net cost of the USO. To do so, An Post should:
  - compare revenues in the baseline year to modelled costs, i.e. those of an efficient operator, in the baseline[15];
  - compare revenues in the reference scenario, which have been adjusted to reflect volume changes and market share effects, with modelled costs, i.e. those of an efficient operator, in the reference scenario;
  - the net cost of the USO is the difference between the two figures.
- We recommend that no adjustment is required to make allowance for a reasonable profit.
- Pursuant to section 35(4)(a) of the 2011 Act, ComReg shall then, on the basis of the information provided by An Post, determine whether the provision of the USO by An Post represents a net cost to An Post.

---

15 We are assuming here that the reference scenario will be sufficiently different from the baseline that the development of a model will be required.

Annex 1: Intangible and market benefits that might arise from the USO

Table 5 below lists a number of intangible and market benefits that have been discussed in the literature as possibly arising from a USO[16].

Table 5. Intangibles that might arise from the USO

Intangible/ market benefits	Thanks to the USO, the USP may achieve…
Most discussed in postal literature	
1. Economies of scale and scope;	Lower average cost in providing several USO products and non-USO products
2. Enhancement of brand value;	Higher sales due to positive impact of brand (customer retention and acquisition)
3. Enhanced advertising effect	Higher sales due to more effective advertising thanks to higher visibility (better value for money)
4. VAT exemption	Higher sales to customers who cannot reclaim VAT back
5. Interest on prepaid postage	Earn interest on this revenue
6. Demand complementarities	Higher sales of other products (as complement to the sale of USO products)
Discussed in postal literature	
7. Ubiquity	Better customer retention and acquisition when mailers move address, better customer acquisition
8. Uniform price	Lower transaction costs for customers and therefore better customer acquisition
9. Customer life cycle effects	These are benefits arising from customers who are currently commercially non-viable and may at some future date become commercially viable. Such customers may, at this point, choose the USP over competitors (better customer retention)
10. Better bargaining position	Easier access to politicians than other operators and stronger influence on regulatory regime
11. Exclusive sale of stamps and monopoly over philately market	Additional revenues/ profits as some sold stamps are never used by users
12. Recipient database	Providing the universal service provides USPs with access to customer and demand information which can be used to market postal products (customer acquisition and retention)

16 The literature covers a number of jurisdictions and therefore some of the benefits listed may not be relevant in the context of the Irish postal market.

Legal privileges of USP/other	
13. Parking and stopping exemptions	Lower costs as USP is exempt from parking restrictions
14. Exemptions from customs and excise legislation	Lower costs
15. Ownership of post office boxes	Great “visibility”, brand recognition
16. Binding power of postmark	Higher sales as the postmark of USP’s mail is a confirmation of date of dispatch
17. Exclusive right to use colour for mailboxes	Brand recognition
18. Right to hang mailboxes free of charge on public sector premises	Exempt from space neutral fee – lower cost

Source: Frontier Economics 2012 WIK (2010)

Annex 1: Intangible and market benefits that might arise from the USO

FRONTIER ECONOMICS EUROPE
BRUSSELS | COLOGNE | LONDON | MADRID

Frontier Economics Ltd 71 High Holborn London WC1V 6DA
Tel. +44 (0)20 7031 7000 Fax. +44 (0)20 7031 7001 www.frontier-economics.com