



POLICY ROUNDTABLES

Universal Service Obligations 2003

Introduction

The OECD Competition Committee debated universal service obligations in October 2003. This document includes an executive summary and the documents from the meeting: an analytical note by Mr. Sean Ennis for the OECD, written submissions from Australia, Austria, Canada, Czech Republic, Denmark, the European Commission, Hungary, Japan, Norway, Portugal, Switzerland, Chinese Taipei, the United States, as well as an aide-memoire of the discussion.

Overview

Universal service obligations are common in many of the infrastructure sectors. The obligations are often cited as a justification for limiting entry of new providers because the new providers would cherry-pick the high profit customers who provide the basis for subsidisation of another group of customers.

When obligations are beneficial, there are a number of policy traps that can be encountered. Obligations are often not well-focused on the customers who are meant to receive help. Obligations are frequently defined narrowly in ways that disfavour new technologies and cause extensive waste; and financing for the non-commercial obligations can often be raised in more efficient ways than through cross-subsidies and can often be spent on multiple service providers rather than one preferred provider.

Falling into these traps can create incentives for over-investment in certain infrastructure technology and under-investment in other technology. This document provides guidance on the competition problems that can arise from universal service obligations and on some ways to limit these problems.

Related Topics

- Structural Reform in the Rail Industry (2005)
- Competition and regulation issues in telecommunications (2002)
- The regulation of access services (2002)
- Promoting competition in postal services (1999)
- Railways: structure, competition and regulatory policy (1998)

Unclassified

DAF/COMP(2010)13

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

20-Apr-2010

English, French

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

UNIVERSAL SERVICE OBLIGATIONS

This compilation was first published in 2004 under the title Non-Commercial Service Obligations and Liberalisation and with cote DAF/COMP(2004)19. The content has not been modified. Only the title has changed.

JT03282067

Document complet disponible sur OLIS dans son format d'origine
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DAF/COMP(2010)13
Unclassified

English, French

FOREWORD

This document comprises proceedings in the original languages of a Roundtable on Non-Commercial Service Obligations and Liberalization which was held by the Working Party n°2 of the Competition Committee in October 2003.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

PRÉFACE

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur les obligations de services non commerciaux et leur libéralisation, qui s'est tenue en octobre 2003 dans le cadre du Groupe de Travail n°2 du Comité de la concurrence.

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

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25.	Oligopoly	DAFFE/CLP(99)25
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28.	Competition in Local Services (Roundtable in October 1999, published in July 2000)	DAFFE/CLP(2000)13
29.	Mergers in Financial Services (Roundtable in June 2000, published in July 2000)	DAFFE/CLP(2000)17
30.	Promoting Competition in the Natural Gas Industry (Roundtable in February 2000)	DAFFE/CLP(2000)18
31.	Competition Issues in Electronic Commerce (Roundtable in October 2000)	DAFFE/CLP(2000)32
32.	Competition and Regulation Issues in the Pharmaceutical Industry (Roundtable in June 2000)	DAFFE/CLP(2000)29
33.	Competition Issues in Joint Ventures (Roundtable in October 2000)	DAFFE/CLP(2000)33
34.	Competition Issues in Road Transport (Roundtable in October 2000)	DAFFE/CLP(2001)10
35.	Price Transparency (Roundtable in June 2001)	DAFFE/CLP(2001)22
36.	Competition Policy in Subsidies and State Aid	DAFFE/CLP(2001)24
37.	Portfolio Effects in Conglomerate Mergers	DAFFE/COMP(2002)5
38.	Competition and Regulation Issues in Telecommunications	DAFFE/COMP(2002)6
39.	Merger Review in Emerging High Innovation Markets	DAFFE/COMP(2002)20
40.	Loyalty and Fidelity Discounts and Rebates	DAFFE/COMP(2002)21
41.	Communication by Competition Authorities	DAFFE/COMP(2003)4
42.	Substantive Criteria used for the Assessment of Mergers	DAFFE/COMP(2003)5
43.	Competition Issues in the Electricity Sector	DAFFE/COMP(2003)14
44.	Media Mergers	DAFFE/COMP(2003)16

TABLE OF CONTENTS

EXECUTIVE SUMMARY	7
SYNTHÈSE.....	13
BACKGROUND NOTE	21
NOTE DE RÉFÉRENCE	69
QUESTIONNAIRE SUBMITTED BY THE SECRETARIAT.....	119
QUESTIONNAIRE SOUMIS PAR LE SECRÉTARIAT	123
NATIONAL CONTRIBUTIONS	
Australia	129
Austria	135
Canada	143
Chinese Taipei	153
Czech Republic.....	165
Denmark	173
Hungary	179
Japan	185
Norway	189
Portugal	191
Switzerland.....	207
United States.....	213
European Commission.....	257
SUMMARY OF THE DISCUSSION	281
RÉSUMÉ DE LA DISCUSSION.....	293

EXECUTIVE SUMMARY

By the Secretariat

In light of the written submissions, the background note and the oral discussion, the following points emerge:

- (1) *Non-commercial service obligations (NCSOs) are requirements to provide a service of a given quality at a “reasonable” price for consumers. NCSOs largely overlap with what are sometimes referred to as universal service obligations, community service obligations, or public service obligations. Not all such obligations are non-commercial, but many do at least involve provision of services to certain economically identifiable customers or groups of customers when costs exceed the revenues from serving those customers. The providers have frequently financed the loss-making customers with prices in excess of cost for the non-loss making customers, using an implicit cross-subsidy. The incumbent in turn often uses the need for these cross-subsidies to justify entry restrictions that prevent entrants from coming in to cherry pick the profitable consumers. But there are many alternative ways of financing obligations that are less harmful to competition than entry restrictions.*

Entry restrictions are rarely necessary for maintaining the service obligation. More specifically, incumbent monopoly is often not necessary for the maintenance of non-commercial service obligations. In fact, maintaining the incumbent monopolist as the “universal” provider can increase costs, because the incumbent may be less efficient than existing competitors for delivering its technology and may not use the lowest-cost technology for different customer groups.

NCSOs that are competitively non-neutral exist in a variety of sectors, including telecommunications, energy, postal services, and transport. Competitively neutral service obligations also exist, for example, the obligation that newspaper kiosks carry all national newspapers, as in Italy. But the main area of concern is NCSOs that are not neutral. Increasingly, OECD members are disconnecting the NCSO from entry barriers and introducing some form of compensation to providers or bidding for service provision. Examples of distributing NCSOs by bidding have occurred with respect to airline service in Norway and with respect to certain telephone services in Chinese Taipei. Many OECD members have eliminated entry restrictions in telecommunications, including wire-line services. Elimination of the link between NCSOs and entry restrictions does not appear to have significantly reduced the provision of universal services.

- (2) *Often service obligations are actually profit-making and thus do not merit any subsidy or special treatment. If providers perceive no risk from making claim for non-commercial service obligations, their incentive will be to suggest high needs for reimbursement. But if a claim for reimbursement automatically makes the claimed area eligible for entrants to take over services,*

claims are much reduced. In evaluating claims for non-commercial service, the evaluations increasingly consider benefits to the providing firm of being the universal service provider as well as costs to the providing firm.

In order for a service obligation to be profitable, it must provide an appropriate risk-adjusted rate of return. A positive accounting profit would not necessarily ensure service provision in a competitive market should levels of risk be significant. Bidding for service provision is required in Germany and Denmark should the firms with service obligations seek a subsidy. In Germany, the telephone provider would suggest a geographic area which was unprofitable and request a subsidy amount. The regulator could modify that geographic area and place the service up for bid. In Denmark, the service provider would designate services, rather than areas, such as emergency communications services. Up to this point, no requests for non-commercial service reimbursement have been received in Germany and Denmark.

The UK telecom regulator estimated that the benefits to the local telephone companies of being the universal service provider likely exceed the costs and has used this finding as a basis for disallowing the claims for subsidy by the local telephone operators. Benefits include customer life cycle benefits (unprofitable customers becoming profitable), ubiquity (a household moving from an uneconomic area to an economic area may contact its previous provider of service), brand enhancement and corporate reputation, and call boxes (that may become economic over time and that display the logo of the company broadly).

Still, relatively few OECD members consider the benefits to the NCSO provider of receiving that designation when calculating reimbursements.

Some services that are profitable and that have historically been delivered through obligations actually do not require an obligation. For example, the UK has recently liberalized the provision of directory enquiries. Several dozen operators chose to enter the market after liberalization, suggesting that the service was fully commercial, did not need entry restrictions and would have been provided even in the absence of such restrictions. Ultimately, the number of providers is likely to consolidate to a small number. The fear of services being discontinued can motivate policymakers to leave them as obligations.

(3) *The nature of the service obligation, including service definition, pricing requirements, and determination of beneficiaries, can dramatically affect the potential for competition in universal service obligations.*

- *Service definition: Service definitions should be performance-based, not input-based; they should not be technology dependent, should not be provider dependent, should be reviewed for continued relevance, and should not necessarily involve the same service provision in both high and low-cost areas.*
- *Reasonable price: In practice, the reasonable price is usually required to be uniform across high cost and low cost areas, meaning that some customers pay a price above the cost of serving them, while others pay prices below the cost of serving them. This practice distorts consumption decisions. Serious consideration should be given to cost-based pricing.*
- *Beneficiaries: The class of users who are intended to receive benefit from NCSOs are often much narrower than the actual set of beneficiaries. Targeting has the potential to eliminate unnecessary subsidies considerably.*

Service definitions have often specified particular technologies as those covered by the service obligation, such as “wire-line telephone service” or planes with a minimum number of seats. These service definitions can often exclude alternative methods of provision that would be acceptable to many consumers. A preferable alternative is to specify the capability, or performance, desired. In the case of telephone calls, this could be the ability to receive calls in a fixed location, as in the EC rules. In the case of transport, this could be movement from one city to another (without specifying whether such an obligation would apply to rail or buses.) Such definitions would not be technology dependent and thus would not exclude alternative providers, such as wireless networks from telephone competition or buses from transport competition, especially as technology changes. One of the most important reasons not to exclude alternative providers is that their services may actually be lower cost than a physically-defined service. For example, a wireless telephone network may be lower cost to install and operate than a wired network when populations are spread out. Similarly, a passenger bus service may be lower cost than a passenger rail service. Hungary’s recent proposal on universal services included the idea that the provider should be the most cost effective, whether fixed-line or mobile.

Reasonable prices are often fixed at uniform levels across populations that have very different costs. In these instances, the people with high cost have a strong interest in receiving subsidization. One of the implications of uniform pricing is that customers who face an artificially low price will over-utilize a service, while customers with artificially high costs will under-utilize a service. These deviations from a flexible-price scenario can have significant social costs and involve significant waste. Pricing liberalization could involve charges for receiving mail in rural areas. Canada has adjusted rates to more accurately reflect the true costs of services. Rates for local services may be higher for some customers than they were before, but the fall in long-distance rates, triggered by competition, has offset this increase for many customers.

Great care must be taken in general when offering a subsidy to ensure that it helps the desired group, does not waste funds, and does not create undesirable investment incentives. Often, the class of users covered by a universal service obligation is “all who demand the service.” But it is important to consider which consumers policymakers are seeking to help. For example, one of the primary motivations of policymakers with telephone pricing is to ensure that poor, rural customers do not pay very high prices (as they would if their prices reflected costs.) However, the benefits of many rural subsidies are often received by suburban dwellers, and poor customers may live in very densely populated areas in which costs are already very low, so that lower prices than the “uniform price” would be justified for such users. Overbroad subsidization may lead to inappropriate payments. Excessive subsidization often has significant deadweight taxation costs, in addition to the excess itself. So reducing the extent of cross-subsidization by targeting those consumers who generated policymaker interest may be worthwhile. Finally, subsidization can also create inappropriate long-term investment incentives.

- (4) *When explicit subsidies are chosen as a means of reimbursing NCSOs, subsidies can sometimes be offered to all providers in relation to the costs of providing a non-commercial service, not just to the historic provider.*

When the costs in the industry are such that entry may occur in the “non-commercial” areas as competition is permitted, possibly because consumer prices are low but subsidies are high, competition for the subsidies may mean that lower cost providers take customers from a higher-cost historic incumbent. However, were regulators certain that lower cost technologies were superior and that investments would not be stranded, it might make more sense to select one unique non-commercial service provider, to prevent the unnecessary multiplication of costs,

while providing the lowest subsidy possible. In Canada, even after telecom companies were permitted to serve non-commercial service areas and receive subsidies, new entrants mainly concentrated on more urban areas.

- (5) *When subsidies are the means of reimbursing non-commercial services, the question of who should provide the subsidy is of high importance. National budgets have often been the source of funds to pay for local services, particularly with transport. The local constituencies have an incentive to demand more services than they would were local funds being used. That is, local constituencies will not weigh the local benefits against the national costs, since the local contribution to the costs is very small. One way to solve this problem is to ensure that the localities or regions that benefit from a service pay for that service as well.*

Germany has moved the financing of regional transport away from federal budgets to regional budgets. This has resulted in more efficient use of transport funds. The regions have contracted directly with rail companies over service costs and schedules. In Australia, many transport projects, such as bus services and ferry services, are funded by the State governments rather than the Federal government.

- (6) *Auctions would resolve a number of financial and competitive problems simultaneously, but are limited in their power to produce good outcomes because: (1) Time periods of a concession are often too short to promote investment, since the life of the investment will be much longer than the life of the franchise (2) When time periods are long enough to promote investment, competition will be limited for a long period of time. (3) Entrants often face considerably higher costs of starting a network than incumbents. (4) The difficulties involved in valuing non-portable assets of incumbents should incumbents have to transfer them to entrants.*

Norway has used auctions to allocate air service routes that are covered by universal service obligations. In these auctions, potential providers bid for a subsidy to provide service of some minimum quality on given routes. The service definitions required some routes to be served by airplanes which had undergone substantial modifications making them suitable for short runways. Given the contract time of 3 years, mandated by EC regulations, it was not worthwhile for airlines to invest in specialized planes, so the incumbent had a tremendous advantage in bidding on these routes and was successfully able to bid for a high subsidy.

In Switzerland, a system of auctioning of concessions was introduced for national telephone service. But it was difficult to find operators besides the incumbent who would bid because the service at issue covered an extremely large geographic area. In the future, firms will be able to apply for concessions at a regional level rather than a national level.

The problem of how to value assets that were developed by an incumbent but that might be taken over by an entrant creates a major stumbling block to auctions in sectors where fixed assets are large, sunk, and owned by the incumbent. Where assets are owned by the government or other independent entity, a new operator can easily take over assets previously operated by the incumbent. Where assets are owned by the incumbent, auctions will succeed best when assets are transportable and non-specialized, as with buses or standard airplanes.

- (7) *Implicit cross-subsidy under monopoly is only one of several possible methods of financing such obligations. Others include:*
- *Industry-specific taxes*

- *Externality taxes on substitutes*
- *General taxes*

The form of financing is particularly important because the costs of non-commercial services are often heavily based on fixed costs rather than variable costs of provision. Thus a price equivalent to the marginal cost would not actually fund the service.

Industry-specific taxes include taxes on other providers of services in the same sector. In many OECD countries, such as Canada, the UK and the U.S., long-distance calls were historically used as a source of funds to subsidize local telephone services. The U.S. has increasingly levied taxes for cross-subsidy on the monthly subscription fees for telephone services. Austria requires all providers of telecommunications services to pay into a fund according to their market shares. These are, in effect, a form of two-part tariffs, in which the first payment is for the subscription to the service and the second is for the marginal usage of the service. Such tariffs have many desirable properties in addition to the low deadweight cost of raising funds.

Externality taxes on substitutes can occur when one good is taxed (such as driving a car) in order to provide funds for an alternative service (such as public transport). The tax has two effects: first, it reduces the relative incentive for private transport and the externality impacts of private transport; second, it increases the funding available for public transport. Such externality taxes have occurred in the UK, with the tax on driving cars in central London. Many of the revenues from this tax go towards buying buses. In Switzerland, revenues from a trucking charge on km travelled are used largely to support the construction of freight train tunnels.

General taxes are often held out as an ideal form of financing for fixed costs. However, the costs of general taxation financing can sometimes be higher than those of taxing individual services, such as monthly subscription fees. Therefore, in assessing the appropriate financing method, it is important to calculate the deadweight losses from different forms of taxation.

(8) *A number of considerations are crucial for deciding on the appropriate financing mechanism for a truly non-commercial service obligation. These include:*

- *Existence of network externalities*
- *Deadweight losses*
- *Distributional effects*
- *Ability of regulator to govern the taxation mechanism.*

When network externalities are important, very substantial benefits may arise for existing subscribers from extending the number of subscribers to those who would not otherwise subscribe. In such an instance, a general or industry tax may not achieve distributional goals, while a tax on those subscribers who benefit the most from the extension of the network to others would be consistent with distributional goals. For example, to the extent that businesses are the primary beneficiary of the extension of telephone networks to low-income consumers, it may be appropriate that they should pay a special tax. However, it is not clear that businesses are the primary beneficiary.

Deadweight losses from taxation can be quite substantial and influence the choice between different sources of subsidy. If the choice is between taxing (1) monthly subscriptions, (2) long-distance phone calls by the minute, and (3) income, then the deadweight losses from each form of financing can be calculated and generally will be very different. Deadweight losses can be different because some taxes influence the marginal level of consumption or work, while others barely influence marginal consumption or work. One major point to emerge is that more inelastic goods should be taxed (such as monthly subscription fees) rather than elastic goods (such as marginal usage fees). Taxing monthly subscriptions rather than the per-minute rate for calls reduces the deadweight loss effects of such taxation, because it has less impact on the quantity of service consumed. However, such forms of taxation may also have distributional effects, if wealthier people tend to make more long-distance calls. So the distributional effects must be weighed against the “tax efficiency” effects.

The ability of regulators to govern the taxation mechanism often means that industry-specific taxes are chosen over general taxes as a source of subsidy. Many OECD members finance telecom subsidies, for example, through telecom industry taxes.

SYNTHÈSE

Par le Secrétariat

Compte tenu des contributions écrites, de la note de référence et de la discussion orale, on peut faire les remarques suivantes :

- (1) *Les obligations de services non commerciaux sont des obligations de fournir un service d'une qualité donnée à un prix « raisonnable » pour les consommateurs. Ces obligations font dans une large mesure double emploi avec ce que l'on qualifie parfois d'obligations de service universel, d'obligations de service collectif ou d'obligations de service public. Toutes ces obligations n'ont pas un caractère non commercial mais un grand nombre d'entre elles comportent au moins la fourniture de services à certains clients ou groupes de clients économiquement identifiables lorsque les coûts excèdent les recettes des prestations de services à ces clients. Les fournisseurs ont souvent financé les pertes occasionnées par certains clients en pratiquant des prix supérieurs aux coûts pour les clients qui n'occasionnent pas de pertes, pratiquant ainsi une forme implicite de subventions croisées. De leur côté, les entreprises déjà implantées sur le marché utilisent souvent la nécessité de ces subventions croisées pour justifier des restrictions à l'entrée qui empêchent les nouveaux arrivants de sélectionner les consommateurs les plus rentables. Cependant, il existe beaucoup d'autres obligations de financement qui sont moins dommageables pour la concurrence que les restrictions à l'entrée.*

Les restrictions à l'entrée sont rarement nécessaires pour assurer l'application de l'obligation de service. Plus précisément, le monopole des entreprises en place n'est souvent pas nécessaire pour assurer l'application des obligations de services non commerciaux. En fait, si le monopoleur en place reste le fournisseur « universel », cela risque d'accroître les coûts, dans la mesure où il peut être moins efficace que ses concurrents pour diffuser ses technologies et ne les utilise pas toujours au plus faible coût pour les différents groupes de clients.

Il existe des obligations de services non commerciaux non neutres du point de vue de la concurrence dans divers secteurs tels que les télécommunications, l'énergie, les services postaux et les transports. Des obligations de services neutres par rapport à la concurrence existent également, par exemple l'obligation pour les kiosques à journaux de fournir tous les journaux nationaux, comme c'est le cas en Italie. Toutefois, le domaine le plus préoccupant est celui des obligations de services non commerciaux qui ne sont pas neutres. De plus en plus, les pays membres dissocient les obligations de services non commerciaux des barrières à l'entrée et instaurent une sorte d'indemnisation des fournisseurs ou un système d'appels d'offres pour les prestations de services. Des exemples de répartition des obligations de services non commerciaux par des appels d'offres ont été observés pour les services de transports aériens en Norvège et pour certains services téléphoniques au Taipei chinois. Beaucoup de pays membres de l'OCDE ont supprimé les restrictions à l'entrée dans les communications, y compris pour les services filaires. La suppression du lien entre les obligations de services non commerciaux et les restrictions à l'entrée ne semble avoir sensiblement réduit la fourniture de services universels.

- (2) *Souvent, les obligations de services sont en fait à but lucratif et ne méritent donc pas de subventions ou de régime spécial. Si les fournisseurs n'ont pas l'impression de prendre de risques en réclamant une indemnisation au titre de leurs obligations de services non commerciaux, ils seront incités à demander des remboursements élevés. En revanche si une demande de remboursement rend automatiquement le secteur concerné attrayant pour de nouveaux entrants, leurs demandes se trouveront fortement réduites. Dans l'évaluation des demandes d'indemnisation au titre des services non commerciaux, on prend de plus en plus en compte les avantages qui résultent pour l'entreprise du fait d'être le fournisseur de services universels autant que les coûts qu'elle doit supporter de ce fait.*

Afin qu'une obligation de services soit rentable, elle doit offrir le taux de rendement ajusté en fonction du risque approprié. Un bénéfice comptable positif n'aboutirait pas nécessairement à la fourniture d'un service sur un marché concurrentiel si les niveaux de risques sont importants.

Les appels d'offres sont requis pour les prestataires de services en Allemagne et au Danemark si les entreprises soumises à des obligations de service demandent une subvention. En Allemagne, l'entreprise téléphonique indique une zone géographique qui n'est pas rentable et demande une subvention d'un certain montant. Les autorités réglementaires peuvent modifier cette zone géographique et soumettre le service à un appel d'offres. Au Danemark, le fournisseur de services désigne des services, plutôt que des zones, telles que les services de communications urgentes. Jusqu'à présent, aucune demande de remboursement au titre de services non commerciaux n'a été reçue en Allemagne ni au Danemark.

Au Royaume-Uni, les autorités réglementaires des télécommunications ont estimé que les avantages dont bénéficient les sociétés locales de téléphone du fait qu'elles sont fournisseurs de services universels l'emportent probablement sur les coûts qu'elles supportent et elles ont utilisé ces conclusions comme motif pour refuser les demandes de subventions des opérateurs téléphoniques locaux. Les avantages sont notamment ceux qui résultent du cycle de vie des clients (les clients non rentables devenant rentables) de l'ubiquité (un ménage quittant une zone non rentable pour s'installer dans une zone rentable peut contacter son ancien fournisseur de services) la promotion de la marque et la réputation de l'entreprise, et les cabines téléphoniques (qui peuvent devenir rentables avec le temps et qui permettent de diffuser largement le logo de la société).

Pourtant, un nombre relativement limité de pays Membres de l'OCDE prennent en compte dans le calcul des remboursements les avantages dont bénéficient les fournisseurs de services non commerciaux obligatoires du fait de cette désignation.

Certains services qui sont rentables et qui ont dans le passé été fournis par obligation ne nécessitent pas en fait une obligation. Par exemple, le Royaume-Uni a libéralisé récemment la fourniture de recherches dans l'annuaire. Plusieurs dizaines d'opérateurs ont décidé d'accéder au marché après cette libéralisation, ce qui montre que le service était pleinement commercial, ne nécessitait pas de restrictions à l'entrée et aurait été fourni même en l'absence de ces restrictions. A terme, les fournisseurs vont se regrouper et ne seront plus qu'un petit nombre. C'est la crainte d'une interruption du service qui justifie le maintien de ces obligations par les responsables politiques.

- (3) *La nature de l'obligation de service, et notamment la définition du service, les conditions de fixation des prix et la détermination des bénéficiaires peut avoir une incidence considérable sur l'aptitude à affronter la concurrence en matière d'obligations de service universel.*

- *Définition du service : Les définitions du service devraient être fondées sur les résultats et non sur les moyens utilisés ; elles ne devraient pas dépendre des technologies utilisées, mais des fournisseurs, la question de savoir si elles sont toujours pertinentes devrait être réexaminée et elles ne devraient pas nécessairement impliquer la fourniture du même service dans les zones à coûts élevés et dans les zones à coûts faibles.*
- *Prix raisonnable : En pratique, un prix raisonnable commun aux zones à coûts élevés et à coûts faibles est généralement exigé, ce qui signifie que certains clients paient un prix supérieur au coût de la prestation du service tandis que d'autres paient des prix inférieurs. Cette pratique fausse les décisions de consommation. Il faudrait envisager sérieusement de fixer les prix en fonction des coûts.*
- *Bénéficiaires : La catégorie des utilisateurs que l'on souhaite voir bénéficier d'obligations de services non commerciaux est souvent beaucoup plus restreinte que le groupe effectif de bénéficiaires. Un meilleur ciblage permettrait de réduire considérablement les subventions inutiles.*

Les définitions des services ont souvent précisé les technologies particulières couvertes par l'obligation de services, tels que « les services téléphoniques filaires » ou des avions transportant un nombre minimum de passagers. Ces définitions peuvent souvent exclure d'autres méthodes de fourniture de services qui seraient acceptables pour de nombreux consommateurs. Il serait préférable de préciser les capacités, ou les résultats souhaités. Dans le cas des appels téléphoniques, ce pourrait être la capacité de recevoir des appels en un lieu fixe, comme c'est le cas selon les règles en vigueur dans la Communauté européenne. Dans le cas des transports, ce pourrait être le déplacement d'une ville à une autre (sans préciser si cette obligation s'applique au transport ferroviaire ou aux autobus). Ces définitions ne dépendraient pas des technologies et n'excluraient donc pas d'autres fournisseurs possibles, tels que les réseaux sans fil, de la concurrence dans le secteur téléphonique ni les bus de la concurrence en matière de transport, notamment lorsque les technologies changent. L'une des raisons les plus importantes de ne pas exclure les autres fournisseurs possibles est le fait que le coût effectif de leurs services peut être plus faible que celui d'un service physiquement défini. Par exemple, un réseau de téléphones sans fil peut être moins coûteux à installer et à gérer qu'un réseau filaire lorsque les populations sont dispersées. De même, un service de transport de passagers par autobus peut être d'un coût plus faible qu'un service de transport ferroviaire. La récente proposition formulée par la Hongrie en ce qui concerne les services universels retenait l'idée selon laquelle le fournisseur doit être le plus efficace en termes de coûts, qu'il s'agisse d'une ligne fixe ou mobile.

Les prix raisonnables sont souvent fixés à des niveaux uniformes pour un ensemble de populations correspondant à des coûts très différents. Dans ces cas, les personnes pour lesquelles le coût est élevé ont fortement intérêt à bénéficier d'une subvention. L'une des conséquences de la fixation de prix uniformes est que les clients qui se voient appliquer un prix artificiellement faible vont utiliser un service d'une manière excessive alors que les clients pour lesquels les coûts sont artificiellement élevés vont le sous-utiliser. Ces distorsions par rapport à une évolution souple des prix peuvent avoir des coûts sociaux importants et donner lieu à des gaspillages considérables. La libéralisation des prix pourrait comporter une facturation de la distribution de courrier en zone rurale. Le Canada a ajusté ses tarifs pour refléter plus exactement les coûts réels des services. Les tarifs des services locaux pourraient être plus élevés que par le passé pour certains clients mais la baisse des tarifs de longue distance, qui résulte de la concurrence, a compensé cette augmentation pour de nombreux clients.

Lors de l'octroi d'une subvention, il faut vérifier avec beaucoup de soin que celle-ci aide le groupe souhaité, n'entraîne pas un gaspillage de fonds et ne constitue pas une incitation à effectuer des investissements injustifiés. Cependant, la catégorie des utilisateurs couverts par une obligation de services universels est définie comme « tous ceux qui demandent le service ». Cependant, il est important de rechercher quels sont les consommateurs que les responsables politiques s'efforcent d'aider. Par exemple, l'une des principales motivations des responsables politiques dans la fixation des tarifs téléphoniques est de faire en sorte que les clients les plus démunis, habitant des zones rurales, ne paient pas des prix très élevés (ce qui serait le cas si les prix qui leur sont appliqués correspondaient aux coûts). Toutefois, ce sont souvent les habitants des zones suburbaines qui obtiennent le bénéfice d'un grand nombre de subventions versées aux habitants des zones rurales et les clients les plus démunis peuvent vivre dans des zones dont la population est très dense et où les coûts sont déjà très faibles, de sorte que des prix plus faibles que le « prix uniforme » seraient justifiés pour de tels utilisateurs. Une application trop large de subventions pourrait aboutir à des paiements injustifiés. Des subventions excessives entraînent souvent des coûts importants en termes de pertes fiscales nettes, en plus de leur montant excessif en lui-même. Par conséquent, il pourrait être souhaitable de réduire l'importance des subventions croisées en ciblant les consommateurs qui ont suscité l'intérêt des responsables politiques. Enfin, les subventions peuvent aussi susciter des incitations à l'investissement inopportunes à long terme.

- (4) *Lorsque des subventions explicites sont choisies comme moyen de compenser les obligations de services non commerciaux, ces subventions peuvent parfois être offertes à tous les fournisseurs en liaison avec les coûts de la fourniture d'un service non commercial, et non pas seulement aux fournisseurs déjà en place.*

Lorsque les coûts du secteur sont tels que l'entrée peut avoir lieu dans les secteurs « non commerciaux » du fait que la concurrence est autorisée, sans doute parce que les prix à la consommation sont faibles alors que les subventions sont élevées, la concurrence pour les subventions peut amener les fournisseurs dont les coûts sont plus faibles à prendre des clients à une entreprise déjà installée et dont les coûts sont plus élevés. Toutefois, si les autorités réglementaires étaient sûres que les technologies dont le coût est moindre sont préférables et que les investissements ne seraient pas marginalisés, il pourrait être plus logique de choisir un seul fournisseur de services non commerciaux pour empêcher une multiplication inutile des coûts, tout en offrant les subventions les plus faibles possibles. Au Canada, même après que les sociétés de télécommunications aient été autorisées à s'occuper de zones de services non commerciaux et à percevoir des subventions, les nouveaux entrants se sont essentiellement concentrés dans les zones plus urbanisées.

- (5) *Lorsque des subventions constituent le moyen de rembourser des services non commerciaux, la question de savoir qui doit fournir la subvention est d'une grande importance. Les budgets nationaux ont souvent constitué la source de financement des services locaux, notamment en matière de transport. La clientèle électorale locale est incitée à demander plus de services que si des financements locaux étaient utilisés. En effet, elle ne compare pas les avantages locaux aux coûts nationaux dans la mesure où la contribution locale aux coûts est très faible. L'un des moyens de résoudre ce problème est de faire en sorte que les collectivités locales ou les régions qui bénéficient d'un service en assurent également le financement.*

L'Allemagne a abandonné le financement des transports régionaux par le budget fédéral pour les financer sur les budgets régionaux. Il en est résulté une utilisation plus efficiente des crédits affectés aux transports. Les régions ont conclu directement des contrats avec des sociétés ferroviaires au sujet des coûts des services et des tarifs. En Australie, beaucoup de projets de

transport, portant notamment sur les services d'autobus et de ferrys sont financés par les gouvernements des Etats et non par le gouvernement fédéral.

- (6) *Les adjudications permettraient de résoudre simultanément un certain nombre de problèmes financiers et de problèmes de concurrence mais leur capacité d'aboutir à des résultats satisfaisants est limitée pour les raisons suivantes : (1) La durée d'une concession est souvent trop brève pour promouvoir l'investissement du fait que la durée de vie de l'investissement sera beaucoup plus longue que celle de la franchise, (2) Lorsque les délais sont suffisamment longs pour promouvoir l'investissement, la concurrence sera limitée pendant une longue période. (3) Les entrants sont souvent confrontés à des coûts nettement plus élevés pour la mise en place d'un réseau que les entreprises déjà en place. (4) Les difficultés que comportent l'évaluation d'actifs non transférables de sociétés déjà en place si celles-ci devaient les transmettre aux nouveaux entrants.*

La Norvège a eu recours à des adjudications pour attribuer les lignes de transport aérien qui sont couvertes par des obligations de service universel. Dans ces adjudications, les fournisseurs potentiels font une offre en vue d'obtenir une subvention pour la fourniture de services d'une qualité minimum sur des lignes données. Les définitions des services obligeaient à desservir certaines lignes à l'aide d'avions qui avaient subi des modifications importantes en vue de les adapter à des pistes d'envol courtes. Etant donné la durée du contrat limitée à trois ans, conformément aux réglementations de la Communauté européenne, il n'était pas rentable pour les compagnies aériennes d'investir dans des avions spécialisés, de sorte que les entreprises déjà en place bénéficiaient d'un avantage considérable lorsqu'elles présentaient leurs offres concernant ces lignes et elles ont pu par conséquent obtenir une subvention élevée.

En Suisse, un système d'adjudication de concessions a été instauré pour le service national du téléphone. Cependant, il a été difficile de trouver des opérateurs autres que les entreprises déjà en place pour présenter des offres du fait que le service en question couvrait une zone géographique extrêmement large. A l'avenir, les entreprises seront en mesure de présenter leur candidature à des concessions au niveau régional et non au niveau national.

Le problème du mode d'évaluation des actifs qui ont été élaborés par une entreprise déjà en place mais qui pourraient être repris par un nouvel entrant constitue une pierre d'achoppement majeure pour les adjudications dans des secteurs où les actifs fixes sont importants, non récupérables et détenus par les entreprises en place. Lorsque les actifs appartiennent à l'Etat ou à une autre entité indépendante, un nouvel opérateur peut facilement reprendre ces actifs gérés antérieurement par l'entreprise en place. Lorsque les actifs appartiennent à l'entreprise en place, les adjudications réussiront le mieux lorsqu'ils sont transportables et non spécialisés, par exemple dans le cas d'autobus ou d'avions standard.

- (7) *Les subventions implicites croisées en situation de monopole ne constituent que l'une des différentes méthodes possibles de financement de ces obligations. Les autres sont notamment les suivantes :*

- *Taxes sectorielles*
- *Taxation des externalités applicables aux produits de substitution*
- *Taxes générales*

La forme de financement est particulièrement importante dans la mesure où les coûts des services non commerciaux comportent souvent une part beaucoup plus importante de coûts fixes que de coûts variables. Par conséquent, l'application d'un prix équivalent au coût marginal ne permettrait pas en fait de financer le service.

Les taxes sectorielles comprennent les taxes sur d'autres fournisseurs de services du même secteur. Dans beaucoup de pays de l'OCDE, tels que le Canada, le Royaume-Uni et les États-Unis, les appels à longue distance ont été traditionnellement utilisés comme source de financement pour subventionner les services de téléphone locaux. Les États-Unis ont prélevé de plus en plus d'impôts sur les subventions croisées applicables aux abonnements mensuels de services téléphoniques. L'Autriche exige que tous les fournisseurs de services de télécommunications effectuent un versement à un fonds en fonction de leurs parts de marché. Il s'agit en fait d'une sorte de tarification en deux parties dans laquelle le premier versement correspond à l'abonnement au service et le second à son utilisation marginale. De tels tarifs présentent de nombreux avantages en plus de la faible perte sèche qu'entraîne l'obtention des fonds.

La taxation des externalités applicable aux produits de substitution peut intervenir lorsqu'un bien (tel que la conduite d'une automobile) est imposé afin de participer au financement d'un autre service (tel qu'un transport public). La taxe a deux effets : en premier lieu elle réduit l'incitation relative au transport privé et les externalités auxquelles il donne lieu ; en second lieu elle accroît les fonds disponibles pour le transport public. De telles taxes sur les externalités ont été instaurées au Royaume-Uni, notamment la taxe sur la circulation d'automobiles dans le centre de Londres. Une part importante des recettes de cette taxe est affectée à l'achat d'autobus. En Suisse, les recettes d'une taxe prélevée en fonction du nombre de kilomètres parcourus par les camions sont utilisées dans une large mesure pour financer la construction de tunnels ferroviaires pour le transport de fret.

Les taxes générales sont souvent considérées comme une forme idéale de financement des coûts fixes. Cependant, les coûts du financement par une imposition générale peuvent parfois être plus élevés que ceux d'une imposition de services individuels, tels que les abonnements mensuels. Par conséquent, dans la détermination de la méthode de financement appropriée, il importe de calculer les pertes sèches occasionnées par les différentes formes d'imposition.

(8) *Les considérations suivantes sont cruciales pour la détermination du mécanisme approprié de financement d'une obligation de service réellement non commercial :*

- *L'existence d'externalités dues à un réseau*
- *Les pertes sèches*
- *Les effets redistributifs*
- *L'aptitude des autorités réglementaires à contrôler le mécanisme d'imposition.*

Lorsque les externalités dues à l'existence d'un réseau sont importantes, les abonnés existants peuvent bénéficier d'avantages considérables du fait de l'extension de leur nombre à des personnes qui ne se seraient pas normalement abonnées. Dans un tel cas, un impôt général ou sectoriel peut ne pas atteindre les objectifs de redistribution alors qu'un impôt sur les abonnés qui bénéficient le plus de l'extension du réseau à d'autres serait compatible avec ces objectifs de redistribution. Par exemple, dans la mesure où les entreprises sont les principaux bénéficiaires de

l'extension des réseaux de téléphone aux consommateurs à faible revenu, il pourrait être justifié de leur faire payer une taxe spéciale. Toutefois, il n'est pas certain que les entreprises soient les principales bénéficiaires.

Les pertes sèches dues à la fiscalité peuvent être très importantes et influencer sur le choix entre les différentes formes de subventions. Si le choix est entre l'imposition (1) des abonnements mensuels, (2) des appels téléphoniques à longue distance en fonction du nombre de minutes, et (3) des revenus, les pertes sèches résultant de chacune des formes de financement peuvent être calculées et seront en général très différentes. Les pertes sèches peuvent être différentes parce que certains impôts influent sur le niveau marginal de consommation ou de travail, alors que d'autres influent à peine sur ces variables. L'un des éléments essentiels qui se dégagent est le fait qu'il faut imposer les biens les plus inélastiques (tels que les abonnements mensuels) plutôt que les biens élastiques (tels que les redevances d'usage marginales). Le fait d'imposer les abonnements mensuels plutôt que le tarif des appels en fonction de leur durée réduit les pertes sèches occasionnées par cette imposition du fait qu'elle a moins d'incidence sur la quantité de services consommés. Toutefois, une telle forme d'imposition peut aussi avoir des effets redistributifs si les appels longue distance sont plus souvent le fait des personnes les plus riches. Par conséquent, il faut comparer les effets redistributifs aux effets « d'efficacité fiscale ».

Le facteur lié à l'aptitude des autorités réglementaires à gérer le mécanisme fiscal explique souvent le fait que les taxes sectorielles soient choisies plutôt que des taxes générales pour financer les subventions. Beaucoup de pays de l'OCDE financent par exemple les subventions aux télécommunications au moyen de taxes applicables au secteur des télécommunications.

BACKGROUND NOTE

By the Secretariat

1. Introduction

Non-commercial service obligations are frequently cited to support the argument that an enterprise should receive a government-protected monopoly over potentially competitive services.¹ The argument is that, without entry restrictions, competitors would cream-skim the profitable services and bankrupt the incumbent by leaving it with only the unprofitable services. The argument concludes that incumbent enterprises should receive protection from entry in order to continue financing the non-commercial services.

The first assumption implicit in this argument is that the services in question are genuinely non-commercial. This claim is often dubious. As a result, the “non-commercial services” discussed here should generally be considered as potentially, rather than definitely, non-commercial services. The second assumption implicit in this argument is that cross-subsidization from the profitable to the unprofitable parts of the business is necessary and can ONLY happen through internal transfers within one company. This assumption is often wrong. As an alternative, unprofitable services can be funded through a government’s general funds or through taxes on services. Given that alternatives exist to internal cross-subsidization, when entry would provide substantial net benefits, it is preferable to fund non-commercial services through an explicit transfer mechanism rather than through hidden cross-subsidies. External funding mechanisms allow competition to develop for the potentially competitive services.

Historically, hidden cross-subsidies were used to finance non-commercial service obligations in a number of different sectors, including the telecommunications sector, the postal sector, the transport sector and the energy sector. An obligation typically applied to just one company in a sector and geographic area. In these sectors, many countries adopted legislation designed to ensure that public service obligations would be met. For example, the European Community has rules that both enable and govern provision of public service obligations in several sectors, including the telecommunications sector², the postal sector³, the transport sector⁴ and the energy sector⁵.

¹ Non-commercial service obligations are sometimes also referred to as universal service obligations, public service obligations or community service obligations. In this paper, “non-commercial service obligations” should be interpreted primarily as a substitute for these other terms. The use of the phrase “non-commercial service” does not imply that a given service is, in fact, unprofitable. The phrase is used in this note to emphasize the linkage between claimed non-commercial service and competitive restrictions.

² 98/10/EC and 97/33/EC

³ Directive 97/67/EC and OJ L 15, 21.1.1998, p.14

⁴ Council Regulation 2408/92/EEC of 23 July 1992 on access for Community air carriers to intra-community air routes, OJ L 240, 24.8.1992, p. 8, COM(2000) 7, 26.7.2000 and article 4 of Regulation 3577/92

While these rules evidence a social desire to support certain services, the mechanisms used to provide these services in many OECD members often yield inefficiencies and competitive distortions such as:

- Inappropriate incentives for low-cost provision because of
 - Regulatory technology choices
 - Regulatory operator choices
 - Lack of competition between providers
- Inappropriate price signals for consumer consumption because of uniform pricing
- Inappropriate price signals for entry and investment because of uniform pricing
- Overbroad subsidy programs
- Taxation deadweight losses

Such inefficiencies and competitive distortions can often be avoided or reduced through redesigned policies. In more and more cases, non-commercial service continues to be provided even in the presence of competitors to the original provider of non-commercial service. Such competition can often help to reduce these inefficiencies and distortions. The purpose of this note is to show how non-commercial service can co-exist with competitive service provision. We will

- Explain why non-commercial service obligations exist
- Discuss why monopolies should not necessarily be preserved for reasons of non-commercial service obligations
- Show how the definitions of non-commercial service can impact liberalization
- Suggest how to finance non-commercial service obligations under a liberalized regime.

While non-commercial service obligations can often be met in the presence of competition, it is not always true that non-commercial service obligations should be provided in the presence of competition. Competition is critical only when it would lead to improved efficiency that would, in turn, typically yield savings for consumers. Furthermore, the competition that arises from eliminating entry restrictions may not be sufficient to improve efficiency. Because the uniform pricing that commonly accompanies non-commercial service obligations implies that some prices are considerably higher than costs while other prices are considerably lower, uniform pricing may distort the incentives to enter a sector (Armstrong (2001)) generating both too little entry at some times and too much entry at others. One solution is to eliminate uniform pricing. But even this solution can be costly, because sometimes the value of a simple pricing system is high. When there is inefficient entry or too much price variability, introducing competition to sectors with non-commercial service obligations can create large costs, whether for consumers, enterprises or regulators, and the size of the costs should be weighed against the benefits of new entry. As long as the likely benefits significantly exceed the likely costs, liberalization should be encouraged while ensuring that sufficient funds exist to support any genuine non-commercial service.

⁵ OJ L 27, 30.1.1997, p.20, OJ L 204, 21.7.1998, p.1

2.0 Why do non-commercial service obligations exist?

Non-commercial service obligations involve the provision of

- services of a defined (minimum) quality
- at a reasonable price⁶
- for a defined class of users⁷

that would not be produced as broadly by a purely commercial enterprise.⁸ The prices charged are regulated. If they were not, then the obligation would not bind the provider to deliver any non-commercial services, because the provider could set prices sufficient either to cover costs or to ensure that demand from the unprofitable segments fall to zero.⁹

Non-commercial service obligations are a form of redistributive pricing. That is, they implement a policy intended to redistribute purchasing power, but do so via prices as opposed to income taxation or direct transfers. The existence of redistribution is particularly clear in the case where a uniform price is set so that the high-cost users pay the same amount as low-cost users. More generally, redistributive pricing

⁶ Sometimes the phrase “affordable price” is used, which suggests less relation to cost of service than “reasonable price”. Affordability may be the more important definition for certain very costly services that are subsidized by the state and provided on a non-commercial basis, such as education and health. These services may be so expensive that the government chooses to make sure the price is affordable to all and so that the funds to pay for the services are not derived from a tax on other users of the service so much as general funds.

⁷ This definition is different from the standard definition of universal service obligations, in that universal service obligations are often defined as services for all users. However, in practice, universal service obligations are (or were at one time) intended to benefit the segment of the population that would not otherwise subscribe to a service (rather than the segment that already subscribed.) Thus, while a universal, geographically average price may be adopted, that price is often intended to help only a limited segment of customers – those for whom the “market” price would be above their willingness to pay. When defining a universal service obligation, it is worth being clear that the obligation was designed to help a limited segment of customers (though possibly with the objective of increasing overall service adoption.) Especially given that many services with “universal service obligations” may not experience a substantial reduction in breadth of coverage from the elimination of such obligations (see below) the emphasis on universality may not be appropriate.

⁸ Some services are governed by universal service obligations that would be likely be provided in the absence of such obligations. Directory enquiries, for example, may fall into this category. Avoiding non-competitive prices for directory enquiries may require the non-discriminatory distribution of information collected from various electronic databases. (See van Caspel et al (2002).) It is not clear that local phone companies will provide others with non-discriminatory access to this information unless required to do so. At the same time, if multiple providers of telephone business advertising pages (called yellow pages in many countries), total costs of page advertising may increase, in addition to an increase in consumer search costs, so that entry restrictions may be justified for yellow page advertising on the basis of an increase in total costs in absence of such a restriction. Although not explicitly discussed in their paper, the work of Busse and Rysman (2002) may predict an increase in total costs to advertisers arising from entry of additional directories. Van Caspel (2002) questions whether it is desirable to have competitors offering joint white/yellow pages (p.101).

⁹ See Cremer et al. (1998a), p.2.

involves the provision of a private good at a subsidized price.¹⁰ Such policies can be optimal in a second-best setting when policy makers lack full information about who should receive direct transfers.¹¹

Examples of services that have a non-commercial service obligation include postal service, transport (especially rail and bus), cable TV service, and various types of phone service (including local phone service and, to a limited extent, broadband Internet access.) Financially more significant examples of non-commercial service occur in health care insurance where a universal level of health insurance is provided, such as in the UK, and in education.^{12, 13}

It is sometimes stated that non-commercial service obligations exist for “essential services”, however this statement may be overbroad. For example, directory enquiries services are often provided under a universal service obligation, but a recent study of consumer demand in the Netherlands suggests that only 2% of people would feel greatly impeded by the discontinuation of directory enquiries.¹⁴

The definition of non-commercial service obligations is reflected in the laws of a number of countries. The French Telecommunications Act of 1996, for example calls universal telecommunications service “the provision of a quality telephone service at an affordable price” and states that the services should be available to anyone who asks for them (French Ministry of Posts, Telecommunications, and Space (1996), art L.35-1.) The Act proceeds to define quality telephone service as basic telephone service, directory services, pay phones in public places, and calls to emergency services. France Telecom is explicitly named as the operator responsible for non-commercial service because the objective is national coverage. Nonetheless, all operators are required to allow emergency calls without charge. The non-commercial services obligations are funded through levies on providers.

Such service obligations exist primarily for equity and political reasons but can also be oriented towards resolving externality problems.¹⁵

- Equity and political considerations
 - Distributional objectives
 - Special interests

¹⁰ Private goods are goods from which individual users can be excluded (in contrast to radio stations) and for which additional users increase marginal costs (in contrast to radio stations).

¹¹ See Cremer and Gahvari (2002).

¹² In absence of a government-operated national health system, private hospitals may be required to provide emergency medical care to patients without insurance when the condition of the patient is life-threatening, as in the US.

¹³ Education and health care are quite different from the other industries in that economies of scale may be more limited, so these industries would be less likely to qualify as natural monopolies that would merit entry restrictions. At the same time, the consumption of these services would likely be much smaller in absence of a state subsidy. Thus the cross-subsidy found within the education and health care sectors may be small, given that few services would be purchased commercially, while the extent of the subsidy itself may be larger.

¹⁴ See van Caspel (2002), p. 36.

¹⁵ van Caspel et al. (2002) state that “the decision on what should and should not be designated as a universal service is primarily political.” (p. 8) This does not mean that there are not good economic arguments for such a designation. However, there may be insufficient economic policy analysis as an input into these decisions.

- Externalities
 - Network effects
 - Consumption effects

These explanations are discussed individually below.

2.1 Redistribution for equity and political reasons

The primary reasons that non-commercial service obligations exist are political and equity considerations, including distributional objectives and special interests, such as corporate and labour interests of non-commercial service obligation providers, as well as consumer groups.¹⁶

2.1.1 Distributional objectives

One rationale for providing non-commercial service is to reduce consumption inequities within the population.¹⁷ Inequities invariably exist in market-based economies, but taxation and re-distribution (or subsidy) may be selected as a means of reducing them for certain products. Non-commercial service products are often deemed to meet the goal of distributional equity. Care must be taken, however, to ensure that political interest groups do not disguise claims that will benefit them under the guise of distributional equity when such a claim may not be justified. There are two primary types of inequity that are used to justify non-commercial service obligations: cost inequities and income inequities.

2.1.1.1 Income differences

Significant income inequality exists in most countries. In order to increase the ability of the low-income consumers to afford products such as phone service, it is possible to provide low-income consumers with a subsidy so that they do not face as high a price as other consumers. For example, the US has initiated Lifeline telephone service that reduces the monthly cost of a basic phone line by a maximum of \$7 a month for qualifying low-income households. (Crandall and Waverman (2000), p.9) In addition, the Link-Up America program subsidizes the connection charge for low-income households with a grant of up to \$30. These two programs cost \$422 million and \$42 million, respectively, which converts into a cost of \$2.43 and \$0.24 per local carrier line that has to be counted for payments into the non-commercial service fund. The funds for these subsidies are raised by taxes on users of telecommunications services.

Income inequality is not typically so high that low income consumers cannot afford phone service. However, there may be other sectors in which low-income consumers literally cannot afford a service essential to their survival. Health care is frequently cited as one of these sectors. Universal health insurance is one of the most expensive non-commercial service obligations enshrined in the laws of many OECD members. The universal provision of health insurance is justified largely on the grounds of

¹⁶ See Alleman, Rapport and Weller (2000) and Kelly (1994).

¹⁷ When considering distributive outcomes, one normally seeks a Pareto-optimal allocation, for allocative efficiency reasons. A Pareto-optimal allocation is one such that no individual could be made better off without making someone else worse off, for a given output. The collection of all Pareto-optimal allocations is large and called the Pareto frontier. Selecting a particular Pareto-optimal allocation on the frontier should be based on a theory of distributive justice. Rawls (1971) argues that distributive justice will involve redistribution in order to maximize the allocative value of the person who is worst off. From this perspective, and from utilitarian perspectives more broadly, universal service cross-subsidies can be viewed as improving distributive justice. For a critique of Rawls, see Mueller (1989).

distributional equity. One problem with universal provision, however, is that subsidized prices generate excess consumption, yielding an inefficient outcome. Inefficiencies may be unavoidable. Direct payments to the sick might be most desirable in theory. But direct payments may not be feasible, as everyone would have an incentive to claim sickness. The system for administering direct payments would become extremely cumbersome and verification of sickness could be very costly or even, in some cases, impossible. If, as an alternative to direct health care payments, health care prices are lowered by subsidy, the redistribution may better target sick individuals, but at the expense of over-consumption.

2.1.1.2 *Cost differences*

When costs are dramatically different for two or more types of consumer, so that one type would face prices much greater than its ability to pay, rates are sometimes lower for the high-cost consumer than those that would be offered in a competitive circumstance. Cost differences are often likely to arise between different geographic areas. One mechanism for making rates lower for the high-cost customers is to implement a geographically uniform price. This may be appropriate in some industries, especially when transaction costs would be high compared to the cost of the good, as with postage stamps.¹⁸ However, in many industries, such uniformity of price is not a business decision but a distributional decision, as when there is only one rate for a service such as basic monthly telephone service.

Frequently, cost differences arise from different densities of population and infrastructure in rural and urban areas. The local political interests arise primarily from politicians and their constituents based in rural or non-densely populated areas. Local transport issues are often especially sensitive, but so are costs for access to essential services, such as telephone service and postal service. When the elimination of a local service that connects a small town to a regional transport network is proposed, local constituents often grow very concerned. As a result, closing down services to unprofitable areas is extremely difficult.

Rural consumers and politicians are particularly influential in countries with geographic-based houses of representation, which provide disproportionate votes to less-populated regions. In addition, when the federal government provides funding for local services, local politicians may be much stronger proponents of universal service than they would be if they had to fund universal service payments from local taxes. When federal funding is large and local interests are expressed through general political bodies or through utility regulators, laws and regulations are likely to be designed more with political considerations in mind than with an objective of economic efficiency or competition.

Many OECD member countries provide that the same monthly and usage-sensitive rates will be charged in rural and urban areas for local telephone services. This is despite the fact that long-run incremental costs may differ by a factor of 10. While some of these costs are fixed costs, in the absence of subsidization from general funds, all these costs must be covered by consumers.¹⁹ For example, using three different forward-looking incremental cost models for local residential service, Crandall and Waverman find that in California the most rural lines can be between 8.3 and 23.1 times more costly than the densest urban lines. These rates are shown in the table below:

¹⁸ Crew and Kleindorfer (1998) argue that the uniformity of price for letters yields lower transaction costs compared to the alternative of varying prices by location. For users, the cost of calculating the appropriate postage may be greater than the potential benefits of lower rates. Similarly, the post office cost of monitoring appropriate postage may increase the costs of processing letters. In contrast, for more expensive items such as packages or express mail, there may be enough benefits to justify the transaction costs. A simple pricing program in which local mail is lower priced than non-local mail may not generate significant transaction costs, however, especially since mail is often collected to distinguish local from non-local. Spain, for example, had two-tier pricing for local and non-local mail until recently.

¹⁹ Frequently, the recovery occurs through a two-part pricing scheme.

Table 1. Monthly costs in multiple forward-looking incremental cost models, California

Cost model	0-5 lines/ square mile	10,000+ lines/square mile	Ratio of low-density to high-density costs
Hatfield	\$105,76	\$9,61	11,0
BCPM*	\$167,03	\$20,03	8,3
HCPM**	\$275,36	\$11,87	23,1

*Benchmark Cost Proxy Model

**Hybrid Cost Proxy Model

Source: *Crandall and Waverman (2000), authors' estimates, p. 108.*

Two fundamental problems arises from charging rates that are significantly below cost and that are not justified by network externalities: services may be over/under-demanded relative to their efficient level and a higher-cost service (e.g. wireline) may be provided when there is a lower-cost competing service that is not covered by the obligation (such as wireless). Rates that lie below the cost of a service often go hand-in-hand with rates significantly above the cost of the service, as when there is uniform pricing across low-cost and high-cost areas. When regional cost differences exist, a less distorted outcome will arise if the costs are reflected in prices or if the costs in the high-cost area are reduced. As long as there is no conflict with any given distributional objectives, costs can be reflected in prices of goods provided under non-commercial service obligations. In Spain, for example first class postal prices were lower for intra-city mail than for inter-city mail until national uniform prices were implemented in 1998.²⁰ Implementation of cost-reflective pricing may be costly and these costs should be taken into account when deciding whether to use non-uniform pricing.²¹

2.1.2 *Special interests*

A major source of political influence arises from the enterprise(s) that deliver the non-commercial service obligations. These are often former state-operated monopolies and, even when privatised, may still operate in a very inefficient manner. Both executives and labour representatives have a strong interest in avoiding competition, because competition may result in lower profits and both reduced employment and wage rates at the enterprise. To the extent that the enterprises are large employers, their employees may also constitute significant voting blocks that are opposed to competition in their own industry.

In many countries, enterprises and their workers have tremendous political power. This power is amplified when governments own a substantial portion of the enterprise, because then the governments may seek to increase the stock value of their investment by maintaining entry barriers. Similarly, regulators may seek to ensure the financial health of an enterprise, particularly if there is a belief that enterprises should operate without state subsidies or if bankruptcy is feared.²² Competition typically decreases the

²⁰ It could be argued that these two mail services are different products, though very few national postal systems treat them as different products. To the extent that the product is "first-class mail", the example illustrates that universal service obligations do not always involve uniform prices.

²¹ In postal service, such costs of non-uniform pricing include costs of administering different rates, such as sorting, and reduced economies of scale and scope.

²² A long-sought goal in the US Congress, for example, has been to stop providing subsidies to the Amtrak passenger rail service.

financial strength of an incumbent.²³ Proclaiming the need for universal service obligations provides regulators, politicians and the enterprises with a justification of special status and the delay of liberalization. Protection from competition can then become a joint goal of regulators, politicians and state-preferred enterprises. In short, universal service arguments can become an instrument of regulatory capture. (See Kelly (1994).)

Ironically, once entry is permitted, the price restrictions inherent in non-commercial service obligations may be beneficial to entrants, especially when the incumbent operator faces regulated prices and the entrants do not. Thus, after liberalization, entrants may have an incentive to lobby for pricing constraints inherent in universal service obligations. In particular, entrants may benefit from the cream skimming that can occur when incumbents are required to charge a price significantly in excess of costs to urban users and when the incumbent cannot price discriminate in response to entry.

In addition to incumbent enterprises, labour and new entrants, special interests may include regional pressure groups. As an example, rural pressure groups may seek benefits for rural consumers. While convincing politicians and the public to provide direct transfers to rural consumers may prove difficult, appealing to a need for uniform prices may create a more politically acceptable form of subsidization that is invisible and accepted on the basis of fairness arguments.

2.2 Externalities

One efficiency-based argument that can justify non-commercial service obligations is that, by subsidizing a service, the positive externalities from the service will counterbalance the costs of provision. For example, the ability to make emergency calls over a public network may provide significant positive externalities to other users, as when a subscriber reports a fire in someone else's building to the fire department.

2.2.1 *Network effects*

Network effects exist when individual benefits of network membership increase as the number of network members increases. More specifically, focusing on industries in which network effects are present, when a service lies in a network effects industry, such as telephone service, the individual who decides whether to join a network will take account of their own individual benefits and costs when deciding whether to join, but will not take account of the benefits received by other members from joining the network. The size of these benefits is a matter of dispute in two-way communication industries, but these network effects do constitute an externality that is not taken into account by the individual joining a network.²⁴

The general result of such a situation is that the social gain from one person joining a network is larger than the personal gain from joining a network. As a result, even a price equal to the marginal cost of connection may result in too few people joining the network because the people at the margin will take into account only their own personal benefits from joining and not the marginal benefits of the others. Two cases are considered in Appendix 1. Reducing the cost of network membership through non-commercial service obligations may increase network size and may yield social benefits.

²³ Depending on the country-specific bankruptcy laws, a bankruptcy of the incumbent may cause a service disruption. Fear of service disruptions can be a powerful motivator behind government behaviour to prefer a former incumbent, as can the desire to avoid foreign control of a sector.

²⁴ Arguing that such network effects are present in non-communications industries such as electricity or gas is much more complex and possibly not appropriate.

While network effects may explain some aspects of non-commercial service, they rely on the assumption that, in absence of the non-commercial service benefit, the high-cost or low-income group would not choose to join the network. While this may be the case for high-cost rural phone users, there is less evidence that low-income urban customers would not pay the unsubsidized rate for phone service. Furthermore, for the rural consumers, there is little evidence that the benefit to urban dwellers exceeds the social cost of subsidizing rural phone lines.

A current subject of debate is whether broadband should be covered by non-commercial service obligations. One of the primary reasons given for this consideration is the size of network effects that arise from broad coverage. However, there is little convincing evidence that the size of the network benefits is so great that service provision should be subsidized for some types of users. A critical and often-ignored point in the broadband debate is that while the concern expressed is typically to ensure good Internet access is available to low-income consumers, many low-income users will not benefit from such obligations because they lack ownership of a personal computer. Another equally important point is that the primary use of Internet bandwidth is often related to goods for which there is little social value in subsidization.²⁵ A recent OECD paper has found that broadband access probably does not merit universal service designation at the moment.²⁶

Even in industries where network effects clearly arise, such as telecommunications and post, features of the universal service obligations, such as uniform pricing, may not be related to the network effect. Moreover, it may not be clear that network externalities would indeed result in too low a degree of network participation, because, even in the absence of regulation, the network operator may find it profitable to increase consumer penetration, since network externalities increase the consumer's willingness to pay.

2.2.2 Consumption effects

Some services may be justified as non-commercial service obligations based on non-network externalities related to the general social good or market failures. The social good can include fostering national cohesion, strengthening regional development, aiding the functioning of democracy, and satisfying ethical obligations not to exclude individuals from services essential to maintaining a basic standard of life.²⁷ An externality-induced market failure may arise with respect to contagious diseases. Inoculations against a contagious disease have a considerably higher public value than private value, in contrast to most health care provision, which is excludable and has a non-negligible marginal cost, constituting a private good. If sick people with contagious diseases are deterred from seeking health care because of the private costs of care, and if lack of care can produce epidemics, then universal health insurance may reduce epidemics. These social good and market failure arguments are sometimes vague and often fail to provide a convincing explanation of why certain goods may merit non-commercial service obligations while others do not merit non-commercial service obligations.

²⁵ The most common high-bandwidth uses of the Internet are song copying and pornography.

²⁶ See OECD (2003). Crandall and Waverman (2000) also find that broadband does not merit treatment as a universal service obligation.

²⁷ Dasgupta (1986) discusses the idea that some aspects of state involvement in the market enhance "positive freedom" through the provision of goods that are needed for people to be thinking, willing and active beings, such as food, shelter, medical care, education and sanitation facilities, while other aspects of state involvement enhance "negative freedom", or freedom from coercion and state interference, such as armies and the legal system.

2.3 Assessment of impact of an obligation

While substantial policy reasons exist to implement non-commercial service obligations, it is important to examine whether the obligations substantially further the policy goals. Frequently, one goal of universal service programs is to help increase service penetration to those who are disadvantaged either by their income or geographic location. However, even a well-tailored program of subsidies to low-income consumers may have very limited impact on service penetration. The ideal method to measure the impact of a targeted subsidy program with a goal of expanding usage of a service is to measure the demand elasticity of that service for the targeted group. Calculating such demand elasticities can be particularly useful for judging which types of subsidies will best expand usage. For example, studies of telephone service in the US suggest that telephone subscription is sensitive to the first-time connection cost, but that telephone subscription is relatively insensitive to monthly subscription price.²⁸ Studies like these would suggest that if universal service adoption is the objective, then connection subsidies for consumers are more effective than monthly subscription subsidies.

The elasticity method of examining whether subscribership increases as a result of service obligations cannot always be used because in many situations, demand elasticities are simply not known. Two simpler methods exist of assessing whether universal service is aided by non-commercial service obligations. When costs differ (for example, by region) estimates of region-specific costs can be made that indicate the extent to which uniform prices do not reflect costs. In the telecommunications sector, for example, some work indicates that the cost of rural service, while higher than urban, is not as dramatically different as others have judged.²⁹ Given a range of possible elasticities, an estimate can then be made of the range of possible subscribership changes from non-commercial service obligations.

A second approach is to examine the current habits of the customer group that is supposedly helped by the non-commercial service obligation. If that group, often either a low-income or rural group, is satisfying its needs for a service largely through technological substitutes to the product with the obligation, then there is some evidence that, in absence of a subsidized price, the target group would still purchase a product and obtain the service. For example, OFTEL (2002) finds that 74% of rural consumers have mobile phones. This is consistent with the idea that if fixed line services were provided at a price that is higher than the current fixed line charge, rural consumers who abandoned fixed-line services would have a high rate of substitution to mobile phones. It is critical to update the service definition in light of the appropriate antitrust market definition as new technologies become important. Overall, if the goal of an obligation is to increase service penetration, then the success in achieving that goal should be reviewed.³⁰

A second goal of non-commercial service obligations may be the redistribution of income, especially towards low-income consumers. The success in achieving this goal can be measured by looking at the extent of the transfer with uniform pricing and comparing that to the transfers that could be

²⁸ See Alleman, Rappoport and Weller (2000), Crandall and Waverman (2000) p. 104, Garbacz and Thompson (1997) and Eriksson, Kaserman and Mayo (1998).

²⁹ Maher (1999) argues that charges based on costs at the local central office level would not be dramatically higher for rural customers than for urban customers.

³⁰ Mueller (1993, 1997) argues that breadth of geographic coverage and penetration in the early US telephone system was propelled by competition between non-interconnected networks of AT&T and independents. When AT&T had a legal monopoly protected by patents (i.e. an entry protection device), breadth of service grew at a slow rate. After 18 years of AT&T monopoly, when the original telephone patents expired in 1895, phone penetration was 0.36% in the US. After the ensuing 17 years of competition between AT&T and independents, penetration increased by a factor of 18.9 to 6.8%. In the same time period, Europe which generally lacked independent competition, experienced a much smaller increase in penetration from 0.25% to 0.70%.

accomplished, at similar overall cost, with a targeted subsidy program and with funding from general taxes as opposed to cross-subsidy. One risk is that non-commercial service obligations may actually invert the direction of redistribution. For example, in programs designed to help high-cost subscribers (as with a uniform rate between urban and rural consumers), most US low-income consumers pay more into the system than they receive in subsidies since many low-income consumers live in low-cost urban areas.³¹

3. Monopoly

Given that non-commercial service obligations exist, we must consider the best market structure for the provision of these services. Historically, most services considered non-commercial were provided by state-owned monopolies in many OECD members states. The reason that these services were provided by monopolies was that the industries in question exhibited substantial economies of scale and scope. Often, these services include uniform pricing and entry restrictions.

While many of these monopolies have since been transferred to private ownership, they are often still the dominant provider of a service in their country. As dominant providers, non-commercial service is regularly used as a weapon in the arsenal of the state-preferred incumbent. The incumbent argues that loss-making services cannot continue to be provided in the absence of a cross-subsidy from non-loss making services. The argument continues that entrants would take only the profitable customers, so entry must be prohibited.

The key issue for deciding the appropriateness of entry restrictions is whether the sector's costs are significantly lower in the presence of a monopoly than when there are two or more firms. If costs are lowest when one firm, rather than two, produces, and if entry is nonetheless profitable for an entrant, then restrictions on entry may be justifiable. This argument is less compelling when the incumbent monopolist is not cost-minimizing and when total costs could be lower after substitution from monopolist production to more efficient entrant production. (For a further discussion of these points, see Appendix 2.)

A second issue for deciding the appropriateness of entry restrictions is whether the penetration of services would fall after the introduction of entry. Crew and Kleindorfer (2000b, 2001) show that a graveyard spiral can occur in which, when the entrant attracts profitable customers, the per-customer costs for serving the remaining customers increase, so that the incumbent must again raise its uniform price and lose yet more customers. Under certain conditions, this spiral can be so severe that the universal service obligation can no longer be supported, as the incumbent becomes insolvent. Crew and Kleindorfer (2003) show that this problem is less severe when the incumbent has price flexibility. In addition, once tax mechanisms are introduced that mean entrants, or others, contribute to the universal service obligation, it is not clear that the graveyard spiral remains a serious possibility.³² If concerns about a graveyard spiral remain, empirical analysis can provide helpful insight into the likely effects of entry. Cohen et al. (2003) suggest that the number of US delivery routes that would be subject to cream-skimming is very limited

³¹ See Rosston and Wimmer (2000) for a comparison of percentage of lines and percentage of subsidy by income category. They find that 37.5% of the highest income households actually receive net subsidies. To some extent, low-income households are subsidizing high-income households. This transfer is not surprising because, while the transfer is primarily from urban to rural areas, many low-income consumers live in densely populated urban areas and many high-income households live in suburban or rural areas. Uniform pricing is thus a very blunt instrument for income redistribution, in contrast to targeted subsidies.

³² An important assumption built into these models is that the incumbent continues with a universal service obligation, even while others may offer duplicative (and cheaper) services. Valletti et al (2002) discuss the interaction between uniform pricing and coverage constraints. In the presence of entry, uniform pricing rules can lead to less coverage by an incumbent and entrant.

because only a relatively small number of routes are highly profitable. As a result, the average price increase needed on remaining routes would not need to be very large to make up for the cream-skimming.

While entry restrictions may be justified under certain circumstances, there are many reasons to support entry. One of the most important is that entry can improve the allocative efficiency of a market, particularly when the incumbent does not minimize costs. Incumbents may fail to cost-minimize because they do not produce the maximum output given their capital and labour structure or because their capital and labor costs are above the appropriate level. Capital costs may be unnecessarily high because of the purchase of excess capital goods (including excess quality) or the payment of too high a price for capital goods. Of these two factors, the appropriate network structure and quality is particularly difficult for a regulator to observe. Labour costs may be unnecessarily high due to excess workers or excess wages. Wachter et al. (2001) suggest that the wages for US postal workers may be 36.2% greater than comparable wage standards in the private sector. Moreover, wages account for approximately 80% of postal service costs. For postal services, entry would place a substantial constraint on the ability of the postal service to maintain such wage premiums. However, there might be other ways to control wage premiums, such as delivery franchising, that should also be considered as potential constraints, but which may be less feasible politically.³³

Suppose now that the incumbent is a relatively efficient producer of its output. The argument that entry restrictions are justified can be problematic for at least three reasons. First of all, incumbents may not be truthful when claiming they have many unprofitable customers. This is especially the case when the efficient costs are substantially below actual costs. Second, other enterprises or technologies may be better-suited to serve some customers than the incumbent, even in a natural monopoly setting.³⁴ Finally, subsidies can often be explicitly provided through an appropriate taxation or surcharge regime that does not harm competition.

Experience has repeatedly proven that liberalization can be successful in the presence of non-commercial service obligations and consumers have benefited extensively from increases in competition. Nonetheless, many member states continue to provide preferred treatment to the former state monopolies and this support, whether financial or regulatory, makes entry difficult. The support of non-commercial service is claimed as a basis to support preferred treatment to the former incumbents, since they are also generally the non-commercial service providers, and to support transfers from new competitors to the incumbent.

3.1 Are the customers really unprofitable?

If an incumbent faces no risk or potential loss from claiming that profitable customers are unprofitable, then the incumbent's incentive is to claim non-commercial service subsidies are required.

³³ To the extent that services are delivered for a higher cost than the minimum cost, other solutions may be available and preferred over entry. For example, entry may imply that a second mail delivery person undertakes deliveries along the same route as the incumbent mail deliverer. Even if incumbent costs then fall to the efficient level because of competition, and assuming the entrant has efficient labour costs, delivery service will cost more than prior to free entry as long as incumbent costs did not exceed efficient levels by more than 100%. An alternative way of reducing incumbent costs would be to contract out or franchise mail routes rather than relying on employed postal delivery personnel. Contracting out for postal delivery is already used for a modest number of rural US routes. In 2001, independent contractors delivered to approximately 1.7 million boxes. (See Crew and Kleindorfer (2003).) Haldi and Merewitz (1997) calculate that USPS saves 38-47 percent on high-cost routes that are contracted out. They argue that losses on the least profitable routes could be eliminated through contracting out.

³⁴ In other words, minimizing costs of a given output does not mean that the quantities of output chosen are correct.

However, when former incumbents are asked to present claims for non-commercial service compensation under a regime in which they risk losing their monopoly over an area for which they make a claim, they will often not do so.

Frequently, the extent to which customers are really unprofitable, given the infrastructure that already exists to serve them (and that was often built under government ownership), is unclear. In some cases, it appears that these customers may be profitable. One piece of evidence about non-commercial service in the telecommunications sector arises from Deutsche Telekom's (DT's) behaviour.

DT has been declared a dominant operator in Germany and, as such, is designated as the universal service provider. Since 1998, DT has had the right to request a subsidy from the state for provision of non-commercial service, based on a method of calculation of its own choosing and based on a geographic area definition of its own choosing.³⁵ However, if DT submits a request for compensation to the German telecom regulator Reg TP, then an auction will be held to provide the services that DT calculates as unprofitable for an appropriately defined geographic area. Up to this point, DT has made no claim for non-commercial service payment.³⁶

This example is interesting because, if service provision really is unprofitable, then non-commercial service operators should be happy to face the option of either receiving a subsidy or losing their monopoly in an unprofitable geographic area. The fact that DT has not made such a request may indicate that Germany is densely enough populated that few lines are unprofitable.

The German regulatory approach to requests for subsidy has the benefit that requesting a subsidy involves the potential of losing part of an operator's monopoly. Thus if a request is made, the operator must clearly believe that the part of its monopoly for which it makes a subsidy request is unprofitable. This mechanism helps to ensure that only truthful claims for cross-subsidies will be made.

One reason that customers who are often considered as "uneconomic" might in fact be profitable is that there can be substantial benefits to being a designated provider of a non-commercial service. In fact, EC directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 states that "any calculation of the net cost of universal service should take due account of costs and revenues, as well as the intangible benefits resulting from providing universal service." (§ 19)

OFTEL has assessed both the benefits and costs to British Telecom of being the primary universal service provider in the UK and found that the benefits actually outweighed the costs. OFTEL estimated in 1997 that the costs of universal service provision for British Telecom were approximately £ 45-65m as follows while the indirect benefits to BT were £ 102-151m:

³⁵ In some other EU member states, such as the Netherlands, the non-commercial service provider (KPN) has had the right since 1998 to request a subsidy or the return of individual services to the state, but the request and potential return must involve the service for the entire country, rather than for a smaller geographic area. KPN has not yet requested any subsidy.

³⁶ One reason for this may be the belief that if a claim is made, DT customers will ultimately be taxed to provide a universal service fund. If elastic goods are taxed, it is possible that such a tax could reduce DT profits on its profitable customers by an amount greater than the tax raised.

Table 2. Cost of universal service obligation incurred by BT, annual

	Universal Service Cost After efficiency adjustment
Uneconomic areas	£ 5-10m
Uneconomic customers	£ 30-40m
Uneconomic payphones	£ 10-15m
Total	£ 45-65m

Source: OFTEL (1999), § 4.11.

Table 3. Benefits to BT of being the universal service provider, annual

	Benefits
Life cycle	£ 1-10m
Ubiquity	£ 40-80m
Brand enhancement and corporate reputation	£ 50m
Call boxes	£ 11m
Total	£ 102-151m

Source: OFTEL (1999), § 4.5.

The benefits for BT arise from customer life cycles (unprofitable customers later becoming profitable customers), ubiquity (a household moving from an uneconomic area to an economic area will know that it can obtain service from BT), corporate reputation from being known to provide uneconomic services and call box benefits (because uneconomic call boxes may become economic over time and because uneconomic call boxes provide constant logo advertising that enhance corporate reputation.) While OFTEL ultimately reduced its estimates of the benefits to a level of approximately £61m, they concluded that combining the benefits and costs “could result in either a small net cost or a small net benefit.” (OFTEL (1999), §4.17) The conclusion of OFTEL was that there was no undue net burden on BT from universal service obligations and that there was “no case for a universal service funding mechanism to be put in place.”(OFTEL (1999), §4.24)

While these examples have focused on the telecom sector, it is also important to consider the benefits of being the universal service provider in other sectors as well. For example, in the postal sector, the incumbent postal service operator receives a substantial benefit in terms of stamp sales based on consumer’s knowledge that the incumbent provides a universal service. If a postal service reduced its service to cover only 99% of destinations, purchases of stamps might fall even-for the still-served locations. Customer uncertainty about which destinations are unserved may lead customers to seek other means of reaching served destinations. The fact that the price of stamps is low and the transaction costs of gaining information about which destinations are served may be comparatively high could generate a substantial loss in demand from uncertainty over served destinations. Universality has the benefit of eliminating the uncertainty so that sales increase. In short, confidence in the universality of service may enhance sales, and these enhanced sales should be considered when evaluating the costs of providing a universal service.

3.2 Is the incumbent best suited to provide the loss-making service?

While an incumbent monopolist may not be able to provide a service profitably to a given set of customers, new entrants may be able to provide a service that is profitable for the same set of customers either because the entrant has a lower cost structure in the same technology as the incumbent or because

the entrant has a different technology from the incumbent.³⁷ That is, an incumbent may not be the most efficient provider of services.

The example of auctioning of rights to unserved areas in Chile shows that incumbent operators may estimate negative profits in areas where positive profits are possible. When trying to increase service to unserved areas, the Chilean government implemented an auction for subsidies to build public phones in unserved areas. The first auction occurred in 1995. While the incumbent carrier did win many of the projects, an independent operator, Chilesat, sought to enter many of these markets and bid a subsidy of 0 for 16 different projects, while the incumbent had never entered these regions and bid a negative price. (See World Bank Group (1997), pp 298-299.)

Another example of profitable provision by a non-incumbent involves short-line railroads in the US. When one company, such as a large incumbent, decides it no longer wishes to provide service and attempts to terminate an unprofitable service obligation, the termination does not necessarily mean the service will cease. In the US, the major private railroads (“Class I railroads”) have abandoned considerable quantities of track since the financial troubles of the railroad industry in the 1970s. Prior to the 1970s, abandoning track was extremely difficult for Class I railroads. The 1976 Railroad Revitalization and Regulatory Reform Act changed the way that railroads were regulated, improving the climate for abandonment, and the ability to abandon was then further enhanced by the Staggers Act of 1981 and the and the 1983 Northeast Rail Service Act. Most of the “abandoned” track was then purchased by small railroads, consisting of either regional (more than 350 miles of track, but less than \$250 million in revenue) or short-line carriers (under 350 miles of track or less than \$40 million in revenue). Between 1970 and 1990, small railroads increased their size from 9,000 to 43,000 track miles.

Short-line carriers operate on average 66 miles (or 106 km) of track and average 23 employees and have revenues under \$5 million. They are typically freight carriers. They have thrived on the former branch lines of Class I railroads. The economic advantage of short-line carriers that allows them to operate successfully while Class I railroads cannot is a combination of lower wage rates and greater work rule flexibility. Labour costs account for about 48% of operating expenses for Class I railroads, thus they are a very significant element of costs. Local railroads pay about 25% less than class I railroads and have less generous benefits. But most importantly, local railroads are much better able to enhance labour productivity. Small railroads were able to negotiate work rules that allowed for smaller crews (two-man crews) long before Class I railroads could negotiate such rules, did not limit train crew mileage, and used employees to perform tasks unrelated to their primary tasks. While 100% of the work forces of the Class I railroads are unionized, many of the small railroads have non-unionized work forces. (Kopicki and Thompson (1995), pp. 249-277.)

The previous examples have illustrated third parties can sometimes operate more efficiently than an incumbent. Another reason that the incumbent may not be best-suited to provide the service is that another provider may incorporate synergies better than a national incumbent. An example of synergies within the transport sector involves passenger rail service in the Netherlands. Regional bus companies operate some regional passenger lines. They are well suited to do so because, for many trips, passengers find it important to coordinate bus and rail aspects of their journey, which is more easily accomplished within a single entity than between distinct entities. Similarly, Postal services may also reduce costs in high-cost areas by altering the operations of post offices and the operational details of how mail is delivered. For example, post offices may be operated in conjunction with general stores so that purchasing

³⁷ Distributed generation and dispersed generation of electricity provide an alternative to standard grid connections. When the cost of building out transmission capacity to a new potential customer is very high, it may make sense, instead, to install on-site generating capacity for a customer. See IEA (2002) for an extended discussion of distributed generation.

stamps, picking up mail, and posting packages are viewed as services that need not be provided by the state-supported postal institution. Finally, based on the observation that routes may be shared with local newspapers, some postal authorities, such as New Zealand Post, have experimented with combining newspaper and mail delivery. (OECD (1999), p. 251)³⁸

3.3 Are subsidies possible that do not restrict competition?

The most important reason that monopolists need not benefit from non-commercial service arguments in order to prevent liberalization is that internal cross-subsidization is not the only way to fund the presumably unprofitable non-commercial service customers.³⁹

Historically, internal cross-subsidization within a large enterprise from profitable users to unprofitable users has been the most common approach to providing non-commercial service. However, while this approach limits the administrative costs that would arise from a universal service fund, the approach has two notable problems:

- The non-commercial users are charged a price below the cost for these customers, so that overall usage increases above the level that would occur at the competitive price and may lead to a substitution from more efficient alternative services to the subsidized service.
- The commercial users are charged a price above the price they would otherwise be charged, so that their usage falls below the level that would occur at the competitive price and may lead to a substitution away from the efficient alternative to less efficient alternatives
- The size of the cross-subsidy is hidden and thus it is difficult to assess whether the cross-subsidy is larger than the social gains.

For these reasons, an explicit and transparent subsidy is often preferable. One of the great benefits of market opening is that it solves the first problem and requires that the subsidy become observable. How to finance such a subsidy is the topic of a later section. However, prior to discussing financing, we must examine the first step in non-commercial service provision, the actual definition of the service. Since the definition of the service can often yield substantial anti-competitive outcomes, great care should be taken to define the service appropriately.

4. Definitions of non-commercial service obligations

Non-commercial service obligations can be designed in such a way that they harm efforts at liberalization and competition. Below, we consider in turn how the three main aspects of the service definitions (the service itself, the price of the service, and the class of users eligible for the service) may impact liberalization.

4.1 Service definition

A critical aspect of non-commercial service is the definition of the service to be provided. The definitions can have strong anti-competitive effects, so they should be written carefully. Many of the same

³⁸ In the US, many of the postal routes covered by contractors are won by newspaper delivery services.

³⁹ In the example of emergency phone calls, there is typically no single provider responsible for meeting the non-commercial service obligation, but rather all providers of fixed and mobile phone service, including the competitors to a former monopoly enterprise, must provide a service. Thus to the extent that a payment is made, all providers should receive a payment.

issues that arise in defining relevant product markets for competition policy purposes also arise with respect to non-commercial service obligations. The service provided is often defined as a basic service that explicitly states a minimum level of quality. Some definitions may extend beyond the core service that merits the universal service obligation and entry restriction.⁴⁰ For example, non-commercial service obligations in the postal service might state that first class retail mail will be delivered within an average of 2 working days, with household delivery once a day for most customers.⁴¹ In telecommunications service, the non-commercial service obligation might state that non-commercial service requires a wired phone line of a given audio quality that is available for all incoming calls and a certain number of outgoing calls, but does not include any long-distance. A new service that is being considered by some countries for non-commercial service is Internet access or broadband access.⁴²

The minimum service definition is often stated in terms of the physical nature of the service. This is a mistake. To ensure that services can be provided at the lowest cost, non-commercial service should be defined in terms of the perceived service to the customer, rather than the physical description of the current service. One reason for this is that regulatory delay implies that a physical service definition is likely to fall behind the relevant technologies. Telephone service that is defined in terms of wireline connections may date from the days when mobile phone technology was highly speculative, but technology has evolved, while the service definition has not. So telephone service may better be defined as access to the primary telephone network rather than fixed-line access to the telephone network. With current technology, it may be cheaper to provide a rural customer with a wireless connection than a wire connection. In countries without highly developed wireline networks, providing access to “local telephone service” via mobile phones rather than via wireline phones may be feasible and desirable.⁴³

With regard to low-income customers, OFTEL found that the percentage of UK homes using a mobile phone and not a fixed-line phone jumped from 5% in May 2002 to 8% in August 2002 and that these mobile-only customers remain predominantly young and low-income. (OFTEL (2002), p. 8)

Mexico’s experience provides a good example of the impact of allowing wireless substitution. Mexico has one of the lowest penetration rates of telephone lines of any OECD country. Accordingly, the promotion of network expansion has been a central policy goal of Mexico. The Secretaría de Comunicaciones y Transportes (SCT), together with the governments of the states of Mexico, has established a Rural Telephone Program to provide service for towns with between 100 and 499 inhabitants. From the Census of 1990, it was determined that there were 32 230 such towns in Mexico without phone service. In 1995 the program was modified to allow new technologies (such as wireless telephones) to participate in the program. Cofetel reports that overall, more than 21 000 localities had been connected during the administration in office as of 1999. (OECD (1999), p 277)

Another way to reduce the allocative distortions is for the service itself to be defined differently in high-cost and low-cost areas in order to reduce costs in the high-cost areas. Mail service may be less frequent in less densely populated areas than in others. For example, when New Zealand revised its postal

⁴⁰ In its recent ASEMPRE ruling (European Court of Justice (2004), the European Court of Justice found that universal service obligations in the postal services, under EC directive 97/67/EC, would not include a restrictive definition of self-delivery and include money orders.

⁴¹ The UK has just proposed reducing its household delivery service from twice a day to once a day.

⁴² In the US, broadband provision to schools, libraries and medical facilities was mandated by the 1996 Telecommunications Act in Section 254 (h) and implemented based on Federal Communications Commission (1997).

⁴³ Similarly, with convergence in communications technologies, some communications that used to be sent by mail are now sent by electronic mail.

service act in 1998, it insisted that New Zealand's Post's social obligation include provision of six-day-per-week deliveries to 95% of delivery points. Thus up to 5% of delivery points could receive mail at a lower frequency service than the rest of the country. (OECD (1999), p. 248) In the area of transport, a similar example exists with substitution between modes of transport. For example, in areas where passenger rail service used to be very frequent, as in France, substitution has been allowed from train to buses, as in the Drôme river valley. Rail was an unprofitable service, while buses were much less costly. Service has been transferred largely from rail to bus, while maintaining at least one train per day. The key political lessons to learn from this transfer are:

- Eliminating a service is politically very difficult.
- Reducing the frequency of the original service is much more easily accomplished.
- The price for the substitute service can be lower than the price for the original service, based on the lower costs of the substitute service and the overall savings from elimination of the more costly service.

The law or rule defining a service will often identify the provider of the service. This may be valuable at times, but policymakers should be careful when making market decisions. In some cases, it may be clear from existing network structures that only one carrier can provide the non-commercial service, as may be the case with certain postal services. Postal services exhibit particularly strong increasing returns to scale delivery. However, in other cases, it may be possible that a variety of carriers could provide a service, as with telephone directory enquiries or, potentially, with local telephone service. Selecting one preferred carrier in advance, either through explicit naming of carriers or through criteria that effectively pre-select a carrier, can be harmful to competition that might otherwise occur.

Box 1. Norwegian regional airlines

In Norway, airline services are viewed as essential for linking the different parts of the country, in much the same way that passenger rail service is viewed as an essential public service in many other member states. The great importance of air service relative to other modes of transportation arises from the dispersed population and fjord-dominated mountainous geography that make both passenger rail and driving very slow. In such an environment, air transport is often the most efficient way to travel from one town to another. For example, a flight from Stavanger to Oslo may take 45 minutes, while the same trip by rail or car will take more than 8 hours. The combination of geography and population distribution lead Norwegians to take more flights per person than the residents of any other European country.

The Norwegian geography not only affects travel patterns but impacts potential airport locations. Extended flat areas preferred for airports are scarce. As a result, airports runways often must be very short, requiring aircraft that are capable of Short Takeoff or Landing (STOL).

In Norway prior to 1998, Widerøe was the unique regional passenger air carrier. It was supported by a subsidy from the state to provide service at a regulated quality and price. However, EU regulations required that competitive three-year tendering be implemented for Public Service Obligation (PSO) routes (Council Regulation (EEC) No 2408/92 Article 4 on access for Community Air Carriers to Intra-Community Air Services.) Based on Norway's membership in the EEA, it was required to implement these EU regulations. As part of the implementation process, the authority overseeing the PSO routes sets standards for service that can include seat capacities, minimum frequencies, maximum fares, non-stop flight requirements, and so on. These standards were specified separately for individual routes based on the expected number of passengers, the length of the flight, and historical standards of service for a particular route. Of particular importance, for airline service on certain routes, the Norwegians define service quality in part by stating the size of plane that must be used to serve a route as having at least a minimum number of seats. In fact, given the short runways in Norway, only one plane meets this size criterion combined with the STOL criterion that is necessary at many Norwegian airports – the De Havilland Dash 8 (with a non-standard, high-power turboprop

engine.) This plane is apparently no longer in production, but Widerøe owns a fleet of the specially-modified planes and is the only Scandinavian airline that can easily operate a fleet of STOL planes to serve routes with a 30-seat requirement.

In the first tendering process arising from the European regulations for serving the public service obligation routes, Widerøe won all the concessions and substantially reduced subsidies below the levels that previously existed. This process covered the period 1998-2000. In the second tendering process, covering 2001-2003, Widerøe is reported to have engaged in selective bidding, with low prices on potentially competitive routes (those with longer runways) and higher prices on routes where they had the unique ability to serve the routes (short runways and high-seating requirements for aircraft), based on the service quality definition. These higher prices sometimes exceeded those paid by state-run subsidy program that existed prior to 1998. Thus for these routes, the state was worse off than prior to the liberalization. The lesson to be learned is that when liberalization occurs in a service, the government must be careful not to create monopoly routes in the process.

More precisely, this example illustrates:

- Defining a service too precisely may yield a de facto dominant bidder for the service. The requirement concerning the size of the plane in this case may limit the potential bidders to Widerøe, the sole company that had easy access to a fleet of planes that could meet the size and STOL requirements.
- Bidding does not work well when there are few potential bidders. When only one potential bidder meets the criteria for a bid, the bid will tend to require a very high subsidy from the government. With only one bidder, setting a price in advance, based on the expected cost of servicing a route, may yield a cheaper outcome from the government's perspective.

Note that there are many types of planes with fewer seats than the Dash 8 and with the capability to operate on STOL runways. So the bidding problems would have been avoided had the Norwegian government chosen to define simply the number of seats that must be available in a day rather than the number of seats that must be available on a specific planes.

Source: OECD (2003a)

In order to encourage the greatest competition to provide non-commercial services, definitions of service should be:

- Technologically neutral (as with the Mexican basic telephone service that allows wireless substitution for fixed line service)
- Non-preferential (not stating that a service shall be provided by a specific enterprise, typically the incumbent)
- Narrowly focused technologically (so that a provider with a great advantage in one technology or geography cannot benefit from that strength with other technologies.) For example directory services need not be provided by the same company that provides local telephone service.
- Narrowly focused geographically (so that a provider with a great advantage in one geographic area cannot leverage that over to other areas.) For example, pay phones in one region of a country do not need to be provided by the same provider as payphones in another region of a country.
- Include sunset provisions to encourage periodic review (to reflect potential technological changes or market changes)

4.2 Reasonable price

The price at which a service is available under non-commercial service is often below the price that would be charged by an unconstrained monopolist and frequently below both the standalone and incremental costs of that service. The price is often set as a uniform price when costs differ between different types of customers. A classic example of a situation in which service is provided at below the incremental cost is rural telephone service. Rural telephone service is often available at the same price as urban service, despite the fact that building a telephone network in urban areas is arguably much cheaper, per user, than building a network to serve rural users. The local loop that runs from a switch to the individual's home is often much longer than for urban customers. The extended length of the line leads to higher initial costs of building the network to serve a customer and higher maintenance costs thereafter.⁴⁴ As a result, the long run marginal cost per user is much higher in rural areas than in urban areas. Setting a constant price for line access across users with different costs will lead people not to reflect their own costs when making consumption decisions. To the extent that actual cost differences are hidden by the pricing system, this will lead to a misallocation of resources and a tax on others that may not be compensated by appropriate benefits. In order to justify such pricing policies, a service should have special social significance.

The setting of the "reasonable price" can be of tremendous importance for competition and liberalization. If the reasonable price is set below the incremental cost of providing the service and there is another substitutable lower cost service available on the market, consumers will choose the cheaper service, even though the cheaper service may be more costly. An example in which this situation might arise is rural telephone service. The "reasonable price" may be set very low for fixed line access, when in fact wireless service might be cheaper to provide in some rural areas. However, customers will make the economically inefficient decision to choose wireline service if the price signals do not reflect the relative costs.

4.3 Class of users

Non-commercial service obligations typically apply to a particular set of users. In many cases, the obligations may extend to any customer who demands a service. For example, first-class unbundled mail is typically provided to all consumers at the same price, regardless of domestic destination.⁴⁵ While the obligation may be broad, the customers who benefit are those who would not purchase or receive in a fully commercial environment. For example with basic telephone service at a uniform price across urban and rural areas, typically the loss-making customers are the rural customers. Urban customers could be served without any subsidy. Thus, while the obligation applies technically to "all" customers, only a small segment of actual customers are non-commercial.

In other cases, non-commercial service obligations may be explicitly limited to a specific set of customers. When the obligation is motivated by distributional considerations, for example, solely one segment of a population may be eligible to receive service, such as low-income persons or schools. It is helpful to identify the true beneficiaries of non-commercial service obligations. When the government liberalizes a sector, knowing the intended beneficiary of the universal service is extremely important. This will allow the government to better target financial remedies, such as subsidies or breaking a firm into profitable and non-profitable segments.

⁴⁴ The cost of laying a line in an urban setting (including congestion costs during construction) may be higher, however, and rights of way may be more difficult to obtain.

⁴⁵ Note that non-profit organizations may sometimes receive discounts.

OECD members choose to categorize different services within the class of non-commercial or universal service obligations.

Once a genuinely non-commercial service has been well-defined, an appropriate pro-competitive method of financing the service must be found.

5. Financing of non-commercial service obligations under liberalization

After liberalization, when there are multiple providers of a service, customers in the potentially competitive segment benefit considerably. At the same time, customers in the non-competitive segment are likely to perceive little benefit from the liberalization. However, the way in which service is financed for the non-competitive segment will likely change significantly. Clearly, it is reasonable for the provider of services to a genuinely unprofitable segment to receive financial subsidies. First, the amount of the subsidies should depend on the costs of the service under efficient provision. Second, the appropriate collection base for the subsidies should depend on the precise rationale for the non-commercial service and on the cross-subsidization goals.

In a network externality case, for example, the users who benefit from the connection of the otherwise unconnected customers might pay. In contrast, it may be inappropriate to tax a user on the TGV line from Paris to Marseilles in order to subsidize passenger rail service on a local line in northeast France; rather it may be preferable to fund the service from the tax base of the northeast of France.

5.1 Costs

In deciding both whether to implement non-commercial service and how much of a subsidy to provide for a non-commercial service provider, estimating the costs of universal service is critical. Much literature has been devoted to estimating the costs of local phone service, of postal service obligations, and of transport provision. In addition, recent OECD reports on telecommunications access pricing (OECD(2002b)) and postal service reform (OECD(1999a)) have discussed techniques for estimating costs in some detail, so this note will not provide an extensive discussion of cost estimation. Note that if an auction method of assigning universal service obligations is used, the regulator's problem of cost estimation and provider selection can be solved simultaneously.⁴⁶

The appropriate costs to estimate are different depending on the problem to be solved. On the one hand, if the question is whether to designate a service as a non-commercial service, an economic welfare cost may be sought that calculates the deadweight loss from uniform pricing against the distributional benefits of broad provision of the service.⁴⁷ On the other hand, if the question is how to reimburse a provider of a non-commercial service, a private cost measure of the provider will be more appropriate.⁴⁸

⁴⁶ Care should be taken that contractors have the financial resources so that low bids would not make them financial unviable. Unless there are many other contractors who could quickly take over in case of contractor default, the granting government should worry about financial viability of the bidders.

⁴⁷ Cremer et al (1997) suggest a method that can be used for measuring the overall welfare impact of a USO.

⁴⁸ A variety of papers estimate the costs of non-commercial service obligations in the postal sector. For theoretical discussions of cost estimation in postal services, see Crew and Kleindorfer (2000a), Panzar (2000) and Soares, Confraria and Pimenta (2002). For cost estimates, see Barthélémy and Toledana (2000), Bradley and Colvin (2001), Cohen et al. (2000), Cohen et al. (2002) and Robinson and Rodriguez (2000). In the telecommunications sector, Cave, Milne and Scanlan (1994) pp. 27-43 and Jamison (1997) provides a broad outline of possible approaches. Crandall and Waverman (2000) pp. 105-128 provide actual estimates based on engineering cost models. Panzar (2000) emphasizes that costs should be calculated

Three overall principles of cost estimation should be kept in mind:

- Avoid paying the provider of non-commercial services amounts that are a subsidy for building infrastructure that would, in any case, have been built to serve profitable customers. These subsidies would then provide the provider with a lower cost structure than it merits for competing with other enterprises.
- Estimate costs (and provide payments to infrastructure builders) that yield an ongoing incentive to build infrastructure for unprofitable customers
- Base costs on the costs of an efficient network, rather than of the actual network (that can potentially be highly inefficient)

Ultimately, a government may decide that the costs of non-commercial service are so small that the incumbent can continue to bear them without risk. In the liberalized postal sector of Sweden, where no entry restrictions exist, the government has taken the view that the costs imposed as a result of universal service requirements are not a threat to the profitability of the incumbent and can be borne by the incumbent without the need to establish an explicit mechanism. (OECD (1999a), p. 9)

Alternately, a government may decide that the costs of non-commercial service obligations are so significant that subsidy must be provided. When this decision is taken, a finance source must be found in addition to a mechanism for determining the recipient of funds.

5.2 Finance source

If the government does wish to reimburse the provider of non-commercial services, it must find a mechanism to raise funds for the reimbursement. As with all redistribution schemes, funding can arise from taxes or from price-setting.⁴⁹ There are four primary alternatives for raising funds:

- Implicit cross-subsidies
- Industry-specific taxes
- Externality taxes on substitute services
- General taxes

Implicit cross-subsidies have historically served as the primary mechanism for funding non-commercial services obligations. Cross-subsidies are inherent in the uniform-price rule in many non-commercial service obligations.⁵⁰ A price that is higher than the cost in urban areas frequently generates profits that subsidize the provision of service in rural areas. If prices in each region reflected costs, such a

based on the market structure after entry, as entry will change the cost characteristics of the pre-existing market structure. The post-entry market structure will clearly depend on regulations in place after entry.

⁴⁹ This section assumes that lump-sum individual taxes based on abilities, are not possible and that the government lacks sufficient information to govern a direct-transfer scheme. Cremer and Gahvadi (2002) show that price and income tax can both yield Pareto-efficient outcomes, in which no one can be made better off without making someone else worse off, given certain conditions.

⁵⁰ This is true when there are differences in cost between region, but not between price, and when the uniform price is greater than the long-run incremental cost in low-cost areas and lower than the long-run incremental cost in high-cost areas.

cross-subsidy scheme would not be feasible because urban prices would not generate profits that could be reallocated to non-commercial service obligations. To the extent that entry forces prices closer to costs, an implicit cross-subsidy program may not be sustainable in the presence of competition. Thus as competition increases, alternatives to the implicit cross-subsidy must be found. These alternatives may increase administrative costs, both in government and in enterprises, because of the creation and operation of a universal service fund.

The three primary alternatives to internal cross-subsidization are industry-specific taxes, taxes on substitutes, general taxes and reductions in tax liabilities.⁵¹ In the EU, the freedom to provide such state support may be limited by state aid rules.⁵² A number of factors should be considered in the decision of which of these is superior for generating funding. These include:

- Breadth of service
- Existence of network externalities
- Deadweight loss from industry vs. general taxation
- Ability of regulator to govern taxation mechanism

Breadth. If a very narrow section of the population benefits from a service, as with telephone service in less developed countries, then the argument for general taxation may be limited. This is because, in such a situation, the narrow section of the population enrolled in the service would often be among the wealthier segment of the population. In such a case, redistribution from general taxation might involve a transfer from the poor to the wealthy.

Externalities. When there are substantial two-way network effects, as with telephone service and postal service, a tax on consumers within the industry may be most appropriate because these users are the ones who benefit the most from other people joining the network (and people outside the network would not perceive a benefit.) In contrast, when there are no network effects, but broad social effects, general taxes may be preferred since the gains are society-wide.

Deadweight welfare loss. Taxes that are not lump-sum taxes necessarily generate some loss of consumer welfare. The extent of the loss depends on the type of tax so for certain purposes, some taxes may be better than others.⁵³ For general income taxes, the key variables for calculating the welfare loss are the impact of taxes on labour supply and saving. For industry-specific taxes, especially ad valorem taxes, the key variables for calculating the welfare loss are the price sensitivity of consumers to the goods which

⁵¹ A fifth alternative is charitable giving. Many US utilities encourage donations from their customers to subsidize heating and electricity use by low-income customers. This can be implemented by asking customers to “round up” their utility bills, instead of paying the precise amount requested.

⁵² In its recent Altmark ruling (see European Court of Justice (2003)) the European Court of Justice found that, when aid is granted to support public service obligations, four conditions must be satisfied: the recipient must have genuine public service obligations that are clearly defined, the parameters for must be established objectively and transparently in advance, the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of the obligation, and when the undertaking is not chosen by a public procurement procedure, the level of compensation shall not exceed what would be required by a well-run enterprise.

⁵³ For a discussion of optimal taxation, see Atkinson and Stiglitz (1976) and Auerbach (1985). Ramsey pricing and taxation are based on the recognition that the taxation of the least elastic good or customer will generate the smallest deadweight welfare loss.

they no longer purchase, at the margin, because of the taxes.⁵⁴ Further details on calculation of deadweight welfare losses are contained in Appendix 3. One point that arises from the discussion in the appendix is that the decision of which product to tax has significant repercussions for welfare losses. Sometimes industry-specific taxes generate greater deadweight loss than general income taxes, and sometimes they generate a smaller deadweight loss.

Regulator. The regulators within an industry may not have the ability to provide subsidies from general funds. This limit may induce regulators to tax users within their sector, over which they have control, when general taxation funds may be a more appropriate source for revenues. Nonetheless payments from general funds or targeted tax rebates are often the least distortionary financing mechanism for non-commercial services.

5.2.1 *Users of same industry's services*

A common source of external tax funds is user taxes. User taxes may either be fixed, and thus independent of the quantity consumed, or variable and dependent on the quantity used. Fixed user taxes are likely preferable because they do not alter the marginal incentives to consume a product, such as phone service. This would suggest, for example, that a non-commercial service obligation for telephone services might better be financed via a monthly fee to users rather than an increase in the per-minute price of calling.⁵⁵

In some cases a fixed lump-sum tax is assessed by the regulator on a company, as with the non-commercial service fee that is assessed on long distance companies in the US on a lump-sum basis. The long distance companies can then choose to pass this tax along to consumers in a transparent way, so that consumers can see that they are paying for non-commercial service funds. However, long-distance companies typically choose to pass the fee on to consumers as a usage-sensitive tax. Such a tax increases the marginal cost to consumers of making telephone calls, raising the price above the cost and reducing the number of calls. Thus when a lump-sum tax is assessed on a company with a view to limiting the impact on marginal consumption decisions, it may be worth considering a regulation that limits pass-through to a monthly fee.

5.2.2 *Externality taxes from substitute services*

One source of funding for non-commercial services may be taxes on substitute services that generate negative externalities. For example, a government may determine that gasoline-powered cars generate significant negative effects on others that arise from pollution or road congestion. As a result, the price of gasoline may be too low to account for all of its negative social effects. At the same time, services that are imperfect substitutes, such as public transportation, may operate at a loss. One possible finance source for public transportation may be taxes on a substitute mode of transport that creates negative externalities. Gasoline taxes can accomplish this goal.

5.2.3 *General income tax*

Non-commercial service obligations can be financed through general taxation rather than industry-specific taxation. Such taxation can occur either at a national or a local level. One of the advantages of income taxes is that people can be taxed progressively, if redistribution is desired, while

⁵⁴ An ad valorem tax is a fixed percentage tax on the value of a good, such as a sales tax.

⁵⁵ See Hausman (1996) for a description of the relative deadweight losses that arise from each form of taxation.

taxation on products may sometimes be more difficult to implement in a progressive fashion. One of the disadvantages of income taxes arises from their incentive effect on labour supply.

When broad social benefits are the rationale for a non-commercial service, as with no-charge emergency phone calls, a subsidy from general funds may be appropriate to those providers who provide the service. When narrow benefits are the rationale for a service, especially when those benefits accrue to a group that is already high-income, a subsidy from general funds may be less appropriate. When deciding between general income tax funds and user taxes as a source of funding, it is helpful to analyze the deadweight losses experienced under both methods, as in Appendix 3. To the extent that regulators control fund-raising in an industry, general funds may not be under their control, so they may prefer user taxes. If so, great care should be taken in deciding exactly what to tax.

It may be appropriate to gather a tax over a limited geographic area (as in a state income tax), or to use general funds allocated to a limited geographic area (from national coffers), for some non-commercial service obligations. If national tax receipts are directly used to pay for local goods, then the local authorities and citizens will typically demand an excessive quantity of the good. On occasions when a local government is urging the continuation of a local service, it is possible to make the local government pay for the service. One example of local governments paying for services exists in German rail transport. In Germany, as elsewhere, one of the major sources of loss for non-commercial passenger rail occurs in rural transport. A commercial operator would close down about two-thirds of the German network on the grounds of unprofitability. This is considered unacceptable from a political point of view. So, in the rail privatization and restructuring in Germany, the federal rail company was sectionalized. It was divided into four sectors - one dealing with freight, the second dealing with long distance passenger services, the third dealing with local and regional passenger service and the fourth dealing with the track. Regional passenger service is particularly unprofitable and thus poses a special problem. The solution was to make the level of service in rural areas a decision of local government rather than the rail company. The local government has to decide whether or not it wants passenger traffic in its rural areas. When the local government wants service, it negotiates with the federal railway (or some other company) to provide these services and the local government must pay for these services. (OECD(1998)) This approach internalizes the balance between the benefits and costs of non-commercial service at a local level.

While non-discriminatory payments for a non-commercial service obligation can avoid bias and favouring of one enterprise over another, in some cases an explicit decision must be made as to which enterprise should provide a non-commercial service. This raises the general question of how to determine which enterprise should receive a non-commercial service obligation.

5.2.4 Tax reductions

There are two primary kinds of tax reductions: exemptions from normal profit or income tax and exemptions from normal sales taxes. Profit tax exemptions are arguably not wise instruments, because on the one hand, a firm solely engaged in providing a loss-making service will not have profits to reduce. On the other hand, if economic profits are positive, the service is commercial and so should not receive a benefit.⁵⁶

When a firm receives an exemption from a sales tax, the exemption may apply to an entire product category, of which only one part would merit a non-commercial classification, or it may apply only to the non-commercial class. In either case, the tax reduction will increase the firm's revenue from a

⁵⁶ See Nicolaides (2003) for a broad discussion of state aid for public service obligations, including use of tax reductions.

sale as long as the market is not perfectly competitive. To the extent that the tax rebate applies both to commercial and non-commercial elements of a service, the tax reduction will be competitively non-neutral.

5.3 Determination of recipient(s) of non-commercial service funds

The former industry monopolist is frequently designated explicitly as the recipient of non-commercial service payments, as in the telecommunications laws of a number of OECD members. To the extent that entry and exit costs are minimal, limitation by law is artificial and may lead to services being provided at an inefficiently high cost. For example, if the postal service declares a particular delivery route to be unprofitable, one possible solution is to allow many firms to compete for a subsidy to provide service on the delivery route via an auction mechanism. As was shown in the Norwegian airline example, such auctions cannot work well when there is only one potential bidder. However, if there a number of competent bidders, an auction mechanism can yield good information about the appropriate level of subsidy in an efficient environment and about who is the lowest cost provider.

Environments in which a significant new infrastructure investment is required by the provider of the non-commercial service are not appropriate for repeated tendering, because in these environments, investments made today may be stranded in the future and because starting the service may be extremely time-consuming.

In contrast, when assets are transportable at low cost and can enter and exit a service market, then tender mechanisms may be appropriate. The Norwegian airline example suggests that where service markets are contestable, good outcomes can arise when firms bid for subsidies.

If an auction mechanism is used, auctions should not be overly frequent and particular attention must be paid to whether the bidders are colluding in order to allocate markets between them.⁵⁷

When a tendering mechanism cannot be used, the payment to the provider should be based on the estimated cost of the service using a cost estimation method that does not reward over-investment, that does not penalize investment, and that does not pay for facilities that would have been built and used in competitive markets, even without a non-commercial obligation.

5.4 Financing overview

If the benefits of competitive activity in a sector exceed the costs of introducing and maintaining competitive service provision, the governing principles for financing non-commercial service should be:

- Transparency. Services should be funded through a transparent mechanism that allows all parties to assess the costs of the service to them and the financial gains of the non-commercial service provider.
- Market neutral. The financing mechanism should not be designed to benefit one party, such as the historical incumbent, over others. This means
 - Do not select a default provider by law unless no other provider could potentially deliver the service

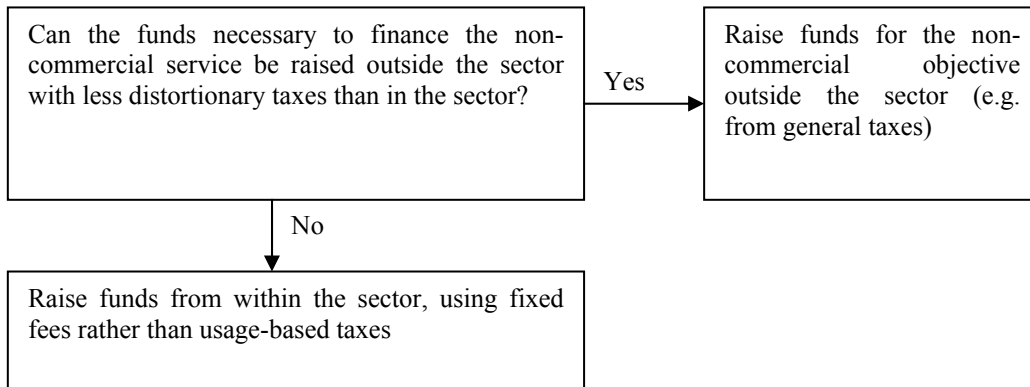
⁵⁷ For discussion of how auction's may aid universal service obligations, see Milgrom (1996), Weller (1998) and Kelly and Steinberg (1998).

- Calculate costs of provision of universal service so that the recipient of funds does not effectively receive a general infrastructure subsidy from the government or from its competitors
- Target beneficiaries. The financing mechanism should be clear about who the beneficiaries of the service are and then designed to help them, rather than other users. Setting a uniform price for all basic telephone services may be designed to aid rural dwellers but may also aid wealthy suburban dwellers, who, like rural users, constitute a less-densely populated group of telephone users. If the suburban dwellers are not the focus of the benefit, they should not be included as beneficiaries. Moreover, if funds can be paid directly to the beneficiaries rather than distorting prices, this option would be preferable. Education vouchers are an example of direct payment to beneficiaries in order to ensure the broad provision of education which is a non-commercial service.
- Payment by neutral party. Payments should be made via a neutral party to non-commercial service providers. Payments should be determined by a neutral party, collected by the neutral party and then distributed to the provider of non-commercial service.

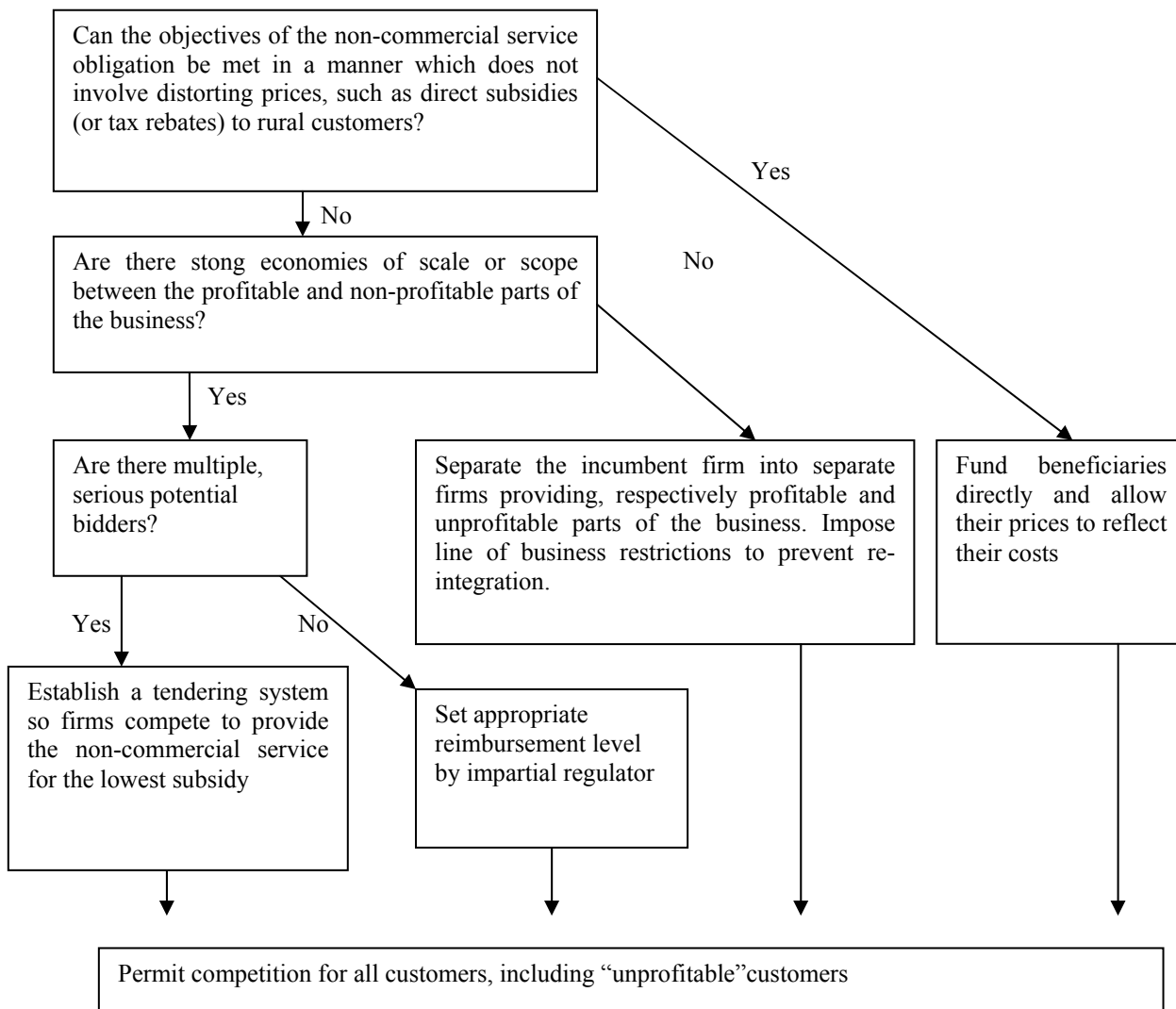
A decision tree for thinking about the financing of non-commercial service obligations follows below:

Guide for financing non-commercial service obligations when liberalization occurs

Raising funds



Spending funds



6. Conclusion

Non-commercial service obligations are present in a variety of industries in OECD member states. They are particularly common in industries that were once state-operated enterprises. However, policy towards non-commercial service is still highly variable. This note suggests that:

- Non-commercial service is often still possible in a liberalized regime. Payments to provide non-commercial service can be made via explicit subsidies.
- Unprofitable services may be less common than is alleged. In some instances, non-commercial service providers with an option to request subsidies have chosen not to do so. Contracting out of inefficiently provided tasks may substantially reduce inefficiency.
- Barriers to competition erected to preserve cross-subsidization should often be eliminated. Eliminating these barriers will ensure that competition will lead to more efficient production processes.
- The costs and benefits of non-commercial services should be reviewed regularly for existing non-commercial services and estimated prior to the introduction of any new service.
- Non-commercial service rules should not generally select a government-preferred provider (there can sometimes be competition to provide the non-commercial service) either explicitly or implicitly.
- Current service designations should be re-evaluated in light of current and future technology. Basic telephone service, for example, should not be defined in terms of fixed wire service but rather in terms of service that provides access to the telephone network, as mobile or satellite service may.
- Compelling evidence should be required to buttress any claim that competition has no role in sectors in which competition is possible.

APPENDIX 1. NETWORK EXTERNALITIES AND NON-COMMERCIAL SERVICE OBLIGATIONS

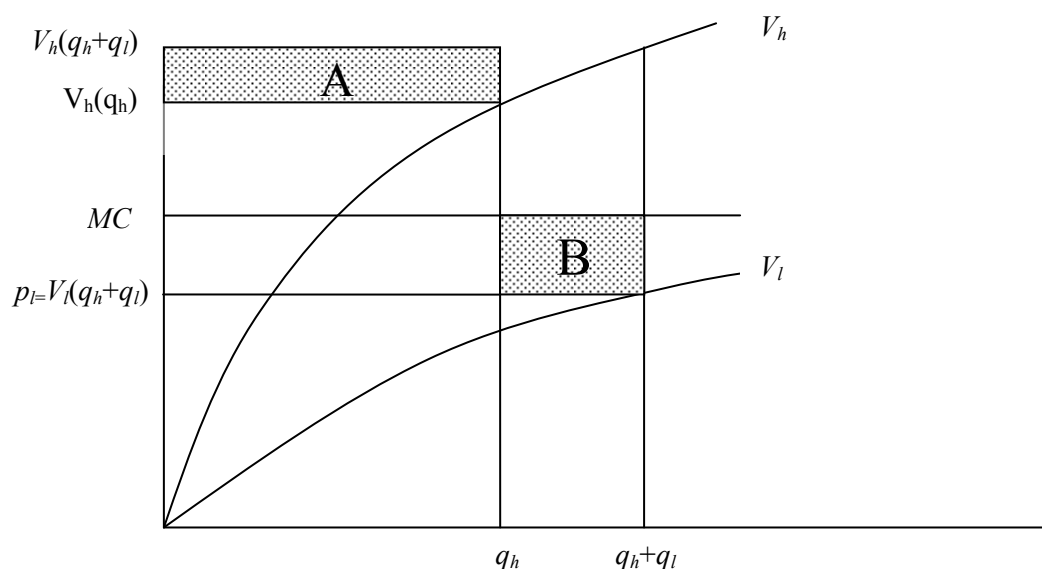
The costs and benefits from non-commercial service obligations in network industries can be illustrated in the two diagrams below:

Suppose there are two types of consumers, those who value network usage highly (quantity q_h of “high-value” customers) and those who value network usage much less (quantity q_l of “low-value” customers who might be thought of as low-income customers). Both high- and low-value customers care only about how many people are on their network, not whether a network member is from the high-value or low-value category. Thus the high-value users have a network value function V_h and the low-value users have a network value function of V_l . This function indicates the value of different network sizes to an individual user. We here assume network functions that exhibit declining marginal returns to network size over all network sizes, though this assumption is not necessary.

To simplify the analysis, let the price for network membership be equal a constant marginal cost. This condition is probably not met in practice, but most easily illustrates the network externalities argument. In the initial network, all the q_h high-value members have joined the network, but the low-value customers have not joined the network because the price they are offered (MC), does not provide sufficient benefit for them to join the network. However, while the marginal cost may be greater than their individual benefit, it may be less than the social benefit, since the social benefit is the sum of the benefit to the individual of joining the group and of the benefit to the group from the joining of another individual.

However, it is clear that the high-value users would actually receive sufficient benefit from the joining of the low-value users (A) to counteract the sum of the low-value individual losses from joining (B). If the low-value users face a price less than $V_l(q_h+q_v)$, then the low-value users face a price sufficient to give them an incentive to join. In effect, the high-value users would benefit from subsidizing the low-value users to join the network.

Figure 1. Network effects with low-value and high-value consumers

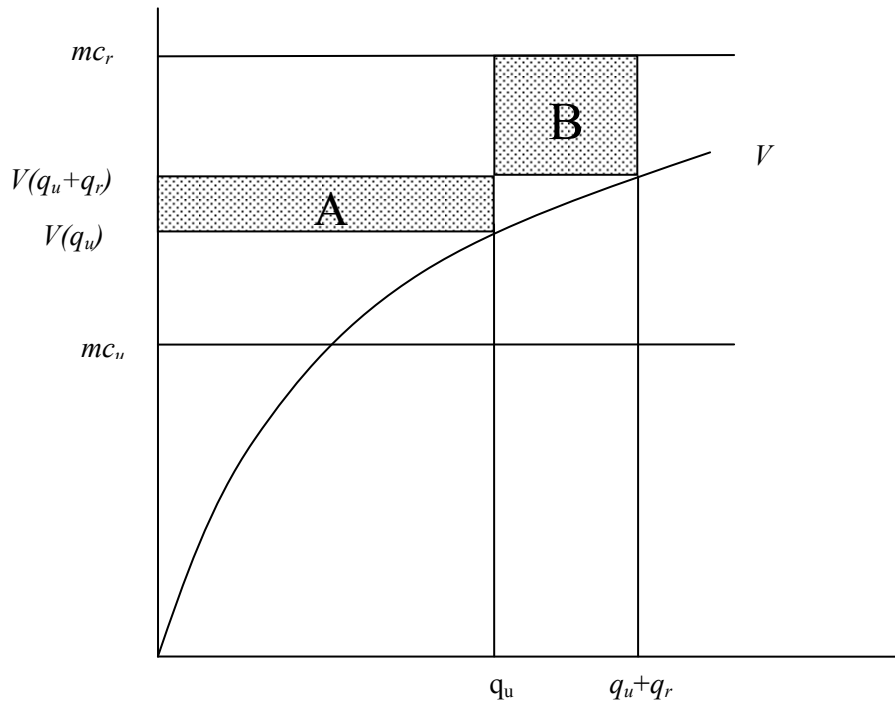


This example may in fact provide one reason, apart from pure distributional equity reasons, to provide low-income telephone subscribers with a subsidy to join the network. The social benefit of their joining may exceed the subsidy. We might well imagine that high-income consumers have a higher network value function than low-income consumers, and can thus be thought of as representing V_h and V_l respectively.

A similar example can be told to explain the difference between urban and rural phone subscribers. Suppose that urban and rural subscribers face the same network value functions but face different marginal costs, with the rural customers facing much higher marginal costs (MC_r) than the urban customers (MC_u). Then the benefit to the urban customers of adding the rural customers is described by the area of A , while the benefit of adding the rural customers is the area B .

It can readily be seen that the greater the cost of rural services compared to the network value of a solely urban network, the less likely it is that the size of A will exceed the size of B . The regulatory solution of an internal cross-subsidy may be reproduced within the framework of negotiated access prices because the urban networks will be willing to subsidize the rural networks when urban customers perceive there is value in reaching rural customers. (See Maher (1999).)

Figure 2. Network effects with low-cost and high-cost consumers



APPENDIX 2. NATURAL MONOPOLY AND ENTRY

A. Efficient incumbent

In this appendix, we review the reasons that entry restrictions may be economically justified. Those entry restrictions that exist have not necessarily been implemented for these economic reasons nor have the appropriate economic analyses have rarely been carried out to justify entry restrictions. This appendix seeks to state the basic conditions that are necessary to provide an economic justification for entry restrictions. While such theoretical conditions exist, some commentators argue that such restrictions are rarely, if ever, satisfied in practice.⁵⁸ Careful analysis must be performed of the cost and demand conditions for each service. These cost and demand conditions may differ across countries, so different solutions may be appropriate in different countries. We begin by considering a basic case in which we have a single-product as opposed to a multi-product firm.⁵⁹

Monopoly is the least-cost industry structure when there are increasing economies of scale over the entire range of possible output. In this case, entry restrictions may not be necessary because, assuming a majority of customers cannot either switch quickly or coordinate their switching, no entrant could have costs as low as the incumbent and the monopolist can always set prices that would deter entry.⁶⁰ The monopoly is called “sustainable” because the market demand and cost functions allow the monopolist to set a price such that (1) the market clears (at this announced price, the monopolist will produce all that is demanded), (2) the monopolist at least breaks even (it may earn profits that exceed the market rate of return) (3) entry is unprofitable (or, more precisely, entry at a scale below that of the monopolist is unprofitable.)⁶¹

Monopoly may also form the least-cost industry structure even when scale economies do not cover the entire range of possible output levels.⁶² “Cost functions are subadditive at a level of output if one firm can produce that level of output at lower cost than can two or more firms.”⁶³ In figure 3, continuously decreasing unit costs up to a level of output q_1 indicate that for each of the level of output between 0 and q_1 , the costs are subadditive. However, even after average costs start to increase, between q_1 and q_s , costs

⁵⁸ See Posner (1999) pp. 71-83 and Armstrong et al. (1994) p. 106.

⁵⁹ This section owes much to Bureau of Economics (1989).

⁶⁰ Whether the monopolist would choose to set prices that would deter entry, or would adopt such prices only in the immediate face of entry, is another matter. If the monopolist would only set deterring prices in the immediate face of entry, but entrants knew that they would face such prices, then a monopolist might be able to sustain monopoly prices and avoid entry. That prices matter becomes important when evaluating the social welfare or consumer welfare that arise from a given industry structure.

⁶¹ A monopoly is “sustainable” if no feasible entry plan “can be expected to yield positive profit under the assumption that the prevailing prices charged by incumbents will not change as result of entry.” (Baumol et al. (1982), p. 25.)

⁶² See Baumol, Panzar and Willig (1982) and Sharkey (1982) for a summary of this work.

⁶³ Bureau of Economics (1989), p. 4.

continue to be subadditive, even though the unit costs are increasing.⁶⁴ The reason is that adding a second producer would necessarily increase the total costs of production.

This figure depicts a natural monopoly, because one firm can produce at the demanded level for less than two or more firms. However, this natural monopoly is not sustainable given the assumption of contestability.⁶⁵ To see this, consider that a monopolist who cannot ration will charge a price $p \geq p_i$ where p_i is the intersection of the demand curve with the average cost curve. At a price less than p_i , it could only satisfy market demand at a loss. However, if the incumbent charges a price $p \geq p_i$, then an entrant could offer to sell the quantity q_i at a price lower than p_i but above p_i and earn a positive profit. Note that the entrant is rationing its quantity, but the incumbent must provide the service to satisfy the remainder of demand. In the illustrated case, if the incumbent serves the first demanders (with the greatest value of service) and the entrant serves the consumers who have the lowest value of the service (which can be thought of as the more marginal quantities), the cost of the service will be changed from the original case of production at the intersection of demand and average cost by A-B. In this case, A-B is greater than 0, so the costs of production clearly increase.⁶⁶

⁶⁴ See Baumol et al. (1982) p. 30.

⁶⁵ These assumptions include (1) the absence of sunk costs, so that “hit and run” entry is feasible and (2) price of the incumbent is fixed (or more technically, that the price response of the incumbent is slower than the quantity response of the entrant.) While the first condition is likely encountered, the second condition may sometimes be correct as a result of regulation that governs incumbent pricing but not entrant pricing. It is far from clear that these two conditions are jointly satisfied by any existing industries. However, the value of this exercise is in presenting a base case from which deviations can be studied.

⁶⁶ In fact, for any quantity to the left of q_s the cost of production with a second firm will be greater than with a first firm by subadditivity.

In a multi-product market with uniform prices but varying costs, it is clear that too much entry can be generated where prices exceed costs and too little where prices are less than costs. Suppose, for example, that entry is being considered by a second postal operator. Suppose further that there are two routes: urban and rural. Moreover, suppose that the cost of delivery is made up of the efficient labor cost or travel time on a route, c_u on the urban route and c_r on the rural route, with a uniform price charged p_u that is between c_u and c_r . The extent to which delivery costs on a given route are variable with quantity of letters is extremely limited. Assuming that entry occurs through the formation of a separate enterprise with separate postal carriers, total industry costs will double on the urban route and remain the same on the rural route, rising by c_u from c_u+c_r to $2c_u+c_r$. Prices may fall on the urban route, increasing consumer welfare for those customers who experience lower prices and also increasing the total quantity of letters sent in the urban area. However, the incumbent will now experience a revenue shortfall, assuming that it was breaking even prior to entry. In contrast, if route costs are variable and constant per letter, then entry will yield, at the same quantity of output as before, total industry costs of c_u+c_r .

Assume that the entrant takes all of the business in the urban area, but the incumbent, with its universal service obligation, is required to continue offering service to the urban area. The incumbent will have to raise prices in the rural area, not just to cover the actual cost of rural delivery, but also to cover the cost of urban delivery. Ironically, opening the market to entry can turn the once-profitable routes into a greater weakness for the incumbent than the unprofitable routes. It is possible that the average cost curve for the incumbent will, for every possible cost, lie above the demand curve in the rural areas, indicating that after entry, the incumbent cannot break even. If the incumbent is free to abandon routes serviced by its competitor, however, then it is still possible that the average cost curve for rural routes would lie above the demand curve. That possibility would not arise from the necessity of continuing routes in the urban areas but rather from the possibility that the value to consumers of the service is always less than the cost of providing it.

While the above discussion has been theoretical, the key question for policymakers is practical: is a given firm an unsustainable natural monopoly? While it is difficult to show that the conditions for being an unsustainable natural monopoly are met, it is simpler to show that the conditions are not met. In particular, it is possible to show that the necessary conditions for subadditivity are not met.⁶⁸

B. Inefficient incumbent

In the discussion of the preceding section, we assume that the incumbent operates in an efficient manner, producing the given output and quality at the lowest possible cost. However, one of the main reasons that deregulation has been pursued in public utility industries is that services often have not been provided in an efficient manner by the incumbent.⁶⁹ Entry restrictions will often create economic rents that can be divided among input suppliers.⁷⁰ The reasons for the presence of inefficiency can take many forms including informational asymmetries, special interest lobbying, technological backwardness.⁷¹ One of the

⁶⁸ Evans and Heckman (1984, 1986) empirically implement a method to test for subadditivity.

⁶⁹ As mentioned elsewhere in this note, studies by Wachter et al. (2001) and Haldi and Merewits (1997) suggest, for example, that postal wages may be more than 36-47% in excess of an appropriate competitive wage.

⁷⁰ Rose (1987) estimates that trucking deregulation led to the shrinkage of the union premium from 50% to 30% above non-unionized workers. She further estimates that, in the presence of entry regulation, 2/3 of industry rents were captured by union workers. In contrast, Hendricks (1975, 1977) does not find a wage premium in most regulated utilities. Note that unions may increase their share of industry rents either through wages or total employment, and total labor costs are not examined by Hendricks.

⁷¹ Principal-agent problems between owner and management are detailed in Fama (1980) and Jensen and Meckling (1976). These suggest that even privately owned firms will not be able to minimize costs (and

most powerful forces that limits inefficiency is entry.⁷² The threat of entry may help to constrain an incumbent to maintain efficiency, especially if cost changes are implemented more slowly than entry can occur.⁷³

Suppose that an incumbent has long been protected from entry, however. Then its costs may be considerably in excess of the efficient level. There are many cases in which entry will actually reduce total industry costs, even if the incumbent's cost function exhibits increasing returns to scale. This is because an inefficient cost function can be declining at all levels of output. Substitution from high-cost producers to low-cost producers can then mean that entry enhances total welfare and consumer welfare.

The key question in assessing the value of such substitution is the extent to which substitution away from an "inefficient" producer actually reduces the inefficient producers' costs, relative to the extent it increases the costs of the efficient producer. For this, what matters is not an examination of the average costs of production, but of the ongoing fixed costs and variable costs of the incumbent compared to the sunk fixed costs and variable costs of the potential entrant. If the average costs of the incumbent are very substantially made up of fixed costs that will continue, in the long run, even after entry (which we may call entry-invariant fixed costs) then entry will not significantly reduce total industry costs, except through possible bankruptcy of the incumbent. In contrast, if the average costs of the incumbent are more substantially made up of variable costs, that will inherently vary after entry, then the possibility for entry to immediately reduce total industry costs is very real.

When considering whether entry will reduce total social welfare, we should ideally calculate both the impact on costs at current output from entry and the impact on social welfare from any change in output. More broadly, we should also focus on the impact of potential or actual entry on effort incentives and the dynamic effect on incentives to innovate and for an incumbent to achieve and maintain efficient operations.⁷⁴

In completing the first calculation, as suggested above, we should compare the total costs in the absence of entry to the total costs in the presence of entry. Entry is more desirable when the total industry costs decline after entry.⁷⁵ This intuition can be formalized. Suppose that an entrant has total costs, at output q , of $TC_i(q)$, made up of a fixed cost F_i and a constant marginal cost c^i . Assume an entrant would be more efficient than the incumbent. Let the entrant's fixed costs be εF^i and the entrant's constant marginal cost be $\varepsilon_m c^i$. Finally, assume that n percent of the quantity q moves to the entrant. Then the $TC_{i,e}(q)$ is given by

maximize shareholder profits.) Leibenstein (1976) discusses non-allocative efficiency problems that arise from imperfect incentives.

⁷² Another limit, that may deal with remediable inefficiencies, is takeover. See Jensen (1988).

⁷³ The absence of competitive pressure can lead to increased managerial perquisites (such as corporate jets) and increased labor perquisites (unduly high wages for the skill of workers and complexity of job.) In particular, while extensive criticism has been made of the contestability theory's assumption that incumbent prices are not flexible, it may be true that prices are inflexible because of cost inflexibility.

⁷⁴ For example, if an incumbent cannot adjust inefficiently high wages quickly in response to entry, than it may have a greater incentive to keep wages closer to the efficient level, in order to avoid a potential loss of quantity or profit after entry.

⁷⁵ Entry may also have price effects that lead to welfare gains, especially for consumers. To the extent that consumer welfare is more heavily weighted than firm profits in the social welfare function, then these price effects become increasingly important. For a discussion of the role of welfare and entry, see Mankiw and Whinston (1986) and Armstrong et al. (1994) pp. 106-109.

$$TC_{i,e}(q) = (1 + \varepsilon_f)F^i + (1 - n)qc^i + \varepsilon_m c^i nq.$$

Entry reduces total costs at the quantity q if and only if $TC_{i,e}(q) < TC_i(q)$, or when

$$\varepsilon_f F^i < (1 - \varepsilon_m) n q c^i.$$

Essentially, what this says is that the increase in fixed costs from entry must be more than counterbalanced by the gains from reduced variable costs on production. The more inefficient the incumbent's variable costs are and the more consumers who switch to the entrant, the greater the variable cost benefit from this change. In contrast, the greater the level of incumbent inefficiency with respect to fixed costs, the harder it will be to make up the gains from entry in variable cost benefits.

The relative levels of fixed and variable costs (in total costs) may vary significantly from one industry to another. In those circumstances where entry, perhaps in conjunction with a universal service obligation, cannot reduce total industry costs but would substantially increase total industry costs (without substantially increasing consumer welfare), alternative means should be found of increasing incumbent efficiency, such as contracting out high labor-cost functions.⁷⁶

⁷⁶

Another concern related to an incumbent's costs may be unfunded pension obligations. Maintaining entry restrictions in order to protect such unfunded pension obligations is not necessary, provided that there is a mechanism, possibly state-financed, to ensure the payment of such obligations. Especially if one of the impacts of maintaining the entry restrictions is to sustain inefficient incumbent operations, substantial benefits may be achieved through state takeover of pension obligations, in combination with free entry.

APPENDIX 3. DEADWEIGHT LOSSES FROM TAXATION

In this appendix, we discuss a simple technique for approximating the deadweight welfare loss that arises from taxing a good by its usage. We then discuss estimates of the deadweight welfare loss that arises from funding a subsidy through general income taxes. Calculating estimates of welfare losses is important, particularly for the policy decisions that compare different potential finance sources for a given subsidy level. The main point that emerges is that when a good has an elastic demand, the deadweight loss is much higher than for a good with an inelastic demand. This is important because many countries impose telecommunications taxes that are ad valorem taxes on usage rather than a fixed tax per line. In the telecommunications sector, usage tends to exhibit high elasticity of demand while line subscription exhibits low elasticity of demand. In such a regime, taxation deadweight losses are quite high. By taxing line subscription instead, deadweight losses could be reduced by a very substantial degree. If general taxes are used, deadweight losses would likely be reduced as well.⁷⁷

The key factors for evaluating the impacts of ad valorem taxes are:

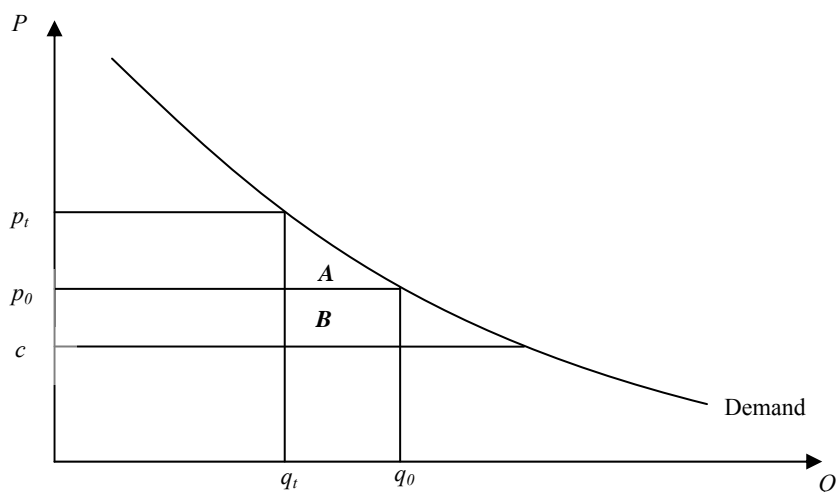
- current price (p_0)
- the magnitude of the tax (t , yielding a price p_t)
- the elasticities of demand of the product to be taxed (η)
- the marginal costs of production of the good (c)

The deadweight loss from a tax that raises the price from p_0 to p_t (and reduces quantity from q_0 to q_t) is the sum of the deadweight consumer loss **A** and the deadweight producer loss **B**.

⁷⁷

While the ad valorem taxes have the benefit that the more intensive users pay a greater tax, this is not necessarily equivalent to saying that the low-income users pay a lower tax, since low-income consumers can be intensive users.

Figure 4. Deadweight loss with ad valorem tax



A+B can be estimated as:

$$\begin{aligned}
 A+B &\approx -\Delta q_0 (p_0 - c) - 0.5 \Delta p_0 \Delta q_0 \\
 &\approx \eta_0 \frac{\Delta p_0}{p_0} (p_0 q_0 - c q_0) + .5 \eta_0 \left(\frac{\Delta p_0}{p_0} \right)^2 p_0 q_0 \\
 &\approx \eta_0 \frac{p_t - p_0}{p_0} (p_0 q_0 - c q_0) + 0.5 \eta_0 \left(\frac{p_t - p_0}{p_0} \right)^2 p_0 q_0
 \end{aligned}$$

We will demonstrate using this formula to estimate the deadweight losses arising from taxing a good.⁷⁸ We are interested in knowing the deadweight loss per unit of tax raised. Thus we can divide through by TR, the tax revenue. This yields

$$\frac{A+B}{TR} \approx \eta_0 \left(\frac{(p_t - p_0) q_0}{TR} \right) \left(\frac{p_0 - c}{p_0} \right) + 0.5 \eta_0 \left(\frac{(p_t - p_0) q_0}{TR} \right) \left(\frac{p_t - p_0}{p_0} \right)$$

or, simplifying,

$$\frac{A+B}{TR} \approx \eta_0 \left(\frac{p_0 - c}{p_0} \right) + 0.5 \eta_0 \left(\frac{p_t - p_0}{p_0} \right)$$

We now provide an example to show how this formula can be used. The figures below are based on the US telephone market and roughly follow Hausman (1996). The first column lists variable estimates for long distance calling with per-minute prices and taxes. The second column lists variable estimates for subscriber line charge, sometimes called the basic monthly fee.

⁷⁸ Note that a more rigorous formula exists if you are willing to assume a log linear demand curve. See Hausman (1981) for a derivation.

Table 4. Variable estimates for calculating deadweight losses

Variable	Long distance, 1995	Subscriber line charge, 1995
Elasticity (η)	-0.7	-0.005*
Price (p)	\$0.0604	\$3.50
Marg Cost (c)	0.25p (maximum)	1.25p
Tax**	41%	53%

*The elasticity estimates come from Hausman et al. (1993)

**Tax is calculated based on FCC per-minute access revenues for 94-95, in order to be consistent with Hausman's other figures.

Using the variable estimates above, the first term (welfare loss to producers) yields a loss of \$0.52 per dollar raised and the second figure (welfare loss to consumers) yields a loss of \$0.13 per dollar raised, for a total loss of \$0.65 per dollar raised.⁷⁹

Another possible tax would arise from a subscriber line charge. In this case, the first term yields a gain of \$0.00125 (since price is currently set below long run incremental cost) and the second term yields a loss of \$0.00107 per dollar raised, for net change in welfare that is insignificant. The consumer welfare loss falls from \$0.13 to approximately zero.

The reason for the difference in the impact of the two taxes is that the elasticity of the subscriber line charge is very low while the elasticity of long-distance prices is much higher. In deciding which tax is appropriate, considerations should include impacts on the breadth of coverage on deadweight losses. Note that taxing the line charge may yield a very small loss in subscribers unless there are programs in place to reduce subscription rates low for low-income consumers, such as the Lifeline program in the US and the LUS scheme of British Telecom.

The approach above calculates an average impact for a given tax t rather than the impact from raising the tax from t to $t+\epsilon$. A more sophisticated approach is to calculate the *marginal* deadweight loss from increasing a tax. The marginal deadweight loss per unit of tax raised measures the cost of raising a pre-existing tax by a small amount and will typically exceed the average deadweight loss. This approach is followed in Hausman (1996) and estimates a marginal loss of \$1.25 per dollar raised via long distance taxation and marginal loss of about \$0.0006 per dollar raised via the subscriber line charge. Admittedly, these estimates come from one estimate of elasticities and taxes in one country. But the method can be applied to the elasticities and taxes estimated by regulators in any given country.

These marginal deadweight losses should be compared with estimates of the marginal efficiency of general taxes, as in the table below.

Table 5. Marginal Efficiency Effects of Additional Taxes Raised

Source of estimate	Type of tax	Marginal effect
Ballard, Shoven and Whalley (1985)	General	0.37
Browning (1987)	General	0.40
Bovenberg and Goulder (1996)	General	0.26
Hausman (1981b)	Income	0.41
Feldstein (1999)	Income	1.26

⁷⁹ Because of significant reduction in the tax rates, the consumer loss has declined by about 72% between 1995 and 2002.

These estimates are derived from US data and thus cannot be taken as representative of all countries. At least for the US, however, the estimates from Table 3 suggest that a general tax will create a smaller deadweight loss than an industry-specific tax on long-distance calling. However, a tax on the monthly fee may yield an even smaller deadweight loss.

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NOTE DE RÉFÉRENCE

Par le Secrétariat

1. Introduction

Les obligations de service non commercial sont souvent invoquées pour justifier qu'une entreprise bénéficie d'un monopole garanti par l'État sur des services susceptibles d'être ouverts à la concurrence¹. L'argument avancé est que, si l'entrée sur le marché ne faisait pas l'objet de restrictions, les concurrents sélectionneraient les services rentables et conduiraient l'opérateur historique à la faillite en ne lui laissant que les services non rentables. Cet argument aboutit à la conclusion selon laquelle les opérateurs historiques doivent bénéficier d'une protection contre l'entrée de concurrents de façon à pouvoir continuer à financer les services non commerciaux.

La première hypothèse sous-jacente à cet argument est que les services en question ont véritablement un caractère non commercial. Cette affirmation est souvent contestable. Aussi, les « services non commerciaux » examinés ici devront généralement être considérés comme des services potentiellement et non effectivement non commerciaux. La seconde hypothèse inhérente à cet argument est qu'une subvention croisée des activités rentables au profit des activités non rentables est indispensable et peut être assurée UNIQUEMENT par des transferts internes au sein d'une seule et même entreprise. Cette hypothèse est souvent fautive. En effet, il existe une autre solution : les services non rentables peuvent être financés par le budget général de l'État ou par des taxes prélevées sur les services. Compte tenu du fait qu'il existe d'autres solutions que les subventions croisées internes, dans les cas où une entrée sur le marché offrirait des avantages nets importants, il est préférable de financer les services non commerciaux par un mécanisme de transfert explicite plutôt que par des subventions croisées occultes. Des mécanismes de financement externes permettent à la concurrence de se développer dans les services potentiellement concurrentiels.

Les subventions croisées occultes existent de longue date pour financer les obligations de service non commercial dans toute une série de secteurs, notamment les télécommunications, la Poste, le transport et l'énergie. En règle générale, une obligation ne s'appliquait qu'à une seule entreprise, dans un secteur et une zone géographique spécifiques. Dans de nombreux secteurs, ces pays ont adopté une législation conçue pour assurer le respect des obligations de service public. Par exemple, la Communauté européenne applique des réglementations qui permettent et régissent la mise en oeuvre des obligations de service

¹ Les obligations de service non commercial sont parfois également appelées obligations de service universel, obligations de service public ou obligations de service collectif. Dans le présent document, le terme "obligations de service non commercial" couvre l'ensemble de ces notions. L'emploi des termes « service non commercial » ne signifie pas qu'un service donné est, de fait, non rentable. L'expression est utilisée ici pour souligner le lien entre les services prétendus non commerciaux et les restrictions de la concurrence.

public dans plusieurs secteurs, notamment les télécommunications², la Poste³, les transports⁴ et le secteur de l'énergie⁵.

Ces réglementations témoignent de la volonté d'aider, sur le plan social, certains services, mais dans de nombreux pays de l'OCDE les mécanismes mis en oeuvre pour fournir ces services engendrent souvent un manque d'efficacité et des distorsions de la concurrence, notamment :

- De mauvaises incitations à fournir les services à bas coût, en raison
 - d'un encadrement réglementaire des choix technologiques,
 - d'un encadrement réglementaire des choix des opérateurs,
 - de l'absence de concurrence entre fournisseurs ;
- De mauvais signaux de prix pour les consommateurs du fait d'une tarification uniforme ;
- De mauvais signaux de prix pour l'entrée sur le marché et l'investissement du fait d'une tarification uniforme ;
- Des programmes de subventions trop étendus ;
- Un manque à gagner fiscal.

En revoyant les politiques adoptées, il est souvent possible d'éviter ou de réduire ces sources d'inefficacité et ces distorsions de la concurrence. Dans un nombre croissant de cas, un service non commercial continue à être fourni même en présence de concurrents du fournisseur original de ce service non commercial. Cette concurrence contribue souvent à réduire les inefficacités et distorsions. Le but de la présente note est de montrer comment la prestation de services non commerciaux peut coexister avec la prestation de services concurrentiels. A cet effet,

- nous expliquerons la raison d'être des obligations de service non commercial,
- nous discuterons des raisons pour lesquelles il n'y a pas lieu de maintenir les monopoles pour des raisons d'obligations de service non commercial,
- nous montrerons en quoi les définitions du service non commercial peuvent influencer sur la libéralisation,
- nous proposerons des modes de financement des obligations de service non commercial dans le cadre d'un régime libéralisé.

² 98/10/CE et 97/33/CE.

³ Directive 97/67/CE et JO L 15, 21.1.1998, p.14.

⁴ Règlement (CEE) 2408/92 du Conseil du 23 juillet 1992, concernant l'accès des transports aériens communautaires aux liaisons aériennes intracommunautaires, JO L 240, 24.8.1992, p. 8, COM(2000)7, 26.7.2000 et article 4 du Règlement 35 777/92.

⁵ JO L 27, 30.1.1997, p. 20, JO L 204, 21.7.1998, p. 1.

Il est souvent possible d'assurer des obligations de service non commercial en présence d'une concurrence, mais pour autant il n'est pas toujours vrai de dire que ces obligations doivent être remplies dans un cadre concurrentiel. La concurrence n'est déterminante que si elle aboutit à une amélioration de l'efficacité qui, à son tour, se solde par des économies pour les consommateurs. En outre, la concurrence qui résulte de la suppression des restrictions à l'entrée risque de ne pas suffire à améliorer l'efficacité. En raison de la tarification uniforme qui accompagne généralement les obligations de service non commercial, certains prix sont très nettement supérieurs aux coûts et d'autres très nettement inférieurs, de sorte que la tarification uniforme peut fausser les incitations à entrer dans un secteur (Armstrong (2001)), suscitant à la fois trop peu d'entrées à certains moments et trop d'entrées à d'autres. Une solution consiste à supprimer la tarification uniforme. Toutefois, même cette solution risque d'être coûteuse, parce qu'il arrive que la valeur d'un système de prix simple soit élevée. Lorsque l'entrée sur le marché est inefficace ou que la variabilité des prix est trop forte, l'introduction de la concurrence dans des secteurs comportant des obligations de service non commercial peut entraîner des coûts élevés pour les consommateurs, pour les entreprises ou pour les instances de réglementation, c'est pourquoi il y a lieu d'évaluer ces coûts par rapport aux avantages de l'entrée d'un nouvel arrivant. Dès lors que les avantages prévisibles l'emportent nettement sur les coûts prévisibles, il faut encourager la libéralisation tout en veillant à ce qu'il existe des fonds suffisants pour financer les services véritablement non commerciaux.

2. Raison d'être des obligations de service non commercial

Les obligations de service non commercial impliquent la fourniture

- de services d'une qualité (minimale) définie,
- à un prix raisonnable⁶,
- à destination d'une catégorie définie d'usagers⁷,

qui ne pourraient être aussi largement fournis par une entreprise purement commerciale⁸. Les prix pratiqués sont réglementés. S'ils ne l'étaient pas, l'obligation ne contraindrait pas le prestataire à fournir des

⁶ L'expression "prix abordable" est parfois utilisée, ce qui suggère une relation moins étroite avec le coût du service que l'expression "prix raisonnable". Le caractère abordable peut être la définition la plus importante pour certains services très coûteux qui sont subventionnés par l'État et fournis sur une base non commerciale, comme l'éducation et la santé. Ces services peuvent être tellement onéreux que les pouvoirs publics préfèrent veiller à ce que le prix soit abordable pour tous pour que les fonds destinés à financer les services ne soient pas tirés d'une taxe pesant sur les autres usagers du service.

⁷ Cette définition diffère de la définition type d'obligation de service universel, dans laquelle la notion d'obligation de service universel est souvent définie comme recouvrant les services destinés à tous les usagers. Cependant, en pratique, les obligations de service universel sont (ou étaient à une certaine époque) précisément destinées au segment de la population qui autrement, ne s'abonnerait pas à un service (et non au segment de la population déjà abonnée). En conséquence, il est possible d'adopter un prix moyen uniforme sur le plan géographique, mais ce prix est souvent destiné à n'aider qu'un petit segment de la clientèle, c'est-à-dire les usagers pour lesquels le prix "du marché" serait au-dessus de leurs moyens. Lorsqu'on définit une obligation de service universel, il est important de préciser que cette obligation est initialement destinée à aider un segment limité de clientèle (même s'il est possible que l'objectif soit d'accroître l'ensemble de la consommation du service). Plus précisément, étant donné que de nombreux services faisant l'objet d'une "obligation de service universel" ne font pas nécessairement l'objet d'une forte diminution de leur couverture suite à la suppression de cette obligation (cf. ci-dessous), il n'est peut-être pas judicieux de mettre l'accent sur le caractère universel.

⁸ Certains services relèvent des obligations de service universel, mais seraient probablement fournis en l'absence de ces obligations. Les renseignements téléphoniques peuvent entrer dans cette catégorie. Pour

services non commerciaux, parce qu'il fixerait ses prix à un niveau suffisant soit pour couvrir ses coûts, soit pour faire en sorte que la demande émanant des segments non rentables tombe à zéro⁹.

Les obligations de service non commercial sont une forme de tarification à des fins redistributives. Autrement dit, elles procèdent d'une politique visant à redistribuer du pouvoir d'achat, et cela par l'intermédiaire des prix pratiqués et non par le biais de l'impôt sur le revenu ou de transferts directs. Cet effet de redistribution apparaît très clairement lorsqu'un tarif uniforme est fixé de sorte que les usagers pour lesquels le coût de prestation est élevé paient le même prix que les usagers pour lesquels le coût de prestation est faible. Plus généralement, une tarification redistributive implique la fourniture d'un bien privé à un prix subventionné¹⁰. Ce type de politique peut être une bonne solution de rechange lorsque les décideurs ne disposent pas de toutes les informations nécessaires pour définir les catégories qui doivent bénéficier de transferts directs¹¹.

Les secteurs de services qui ont une obligation de service non commercial sont, par exemple, les services postaux, les transports (en particulier les chemins de fer et les autobus), la télévision par câble et différents types de services téléphoniques (y compris les services téléphoniques locaux et, dans une moindre mesure, l'accès à Internet à haut débit). On pourrait citer d'autres exemples plus lourds sur le plan financier comme la sécurité sociale, lorsqu'un niveau universel de prestations d'assurance maladie est assuré, comme au Royaume-Uni, et l'éducation^{12,13}.

On dit parfois que les obligations de service non commercial portent sur des "services indispensables", mais cette affirmation pourrait bien être sans fondement. Par exemple, les services de renseignements téléphoniques sont souvent assurés dans le cadre d'une obligation de service universel,

éviter que soient pratiqués des prix non concurrentiels pour les renseignements téléphoniques, il peut être nécessaire de prévoir la distribution non discriminatoire d'informations collectées à partir de diverses bases de données électroniques (cf. van Caspel et al., 2002). Il n'est pas certain que les sociétés locales de téléphone offrent à d'autres un accès non discriminatoire à ce type d'information, à moins qu'elles n'y soient contraintes. Parallèlement, s'il y a plusieurs fournisseurs de pages publicitaires dans les annuaires (appelées pages jaunes dans de nombreux pays), le coût total d'une page de publicité risque d'augmenter, s'ajoutant à une augmentation du coût de recherche pour les usagers, de sorte que des restrictions à l'entrée se trouvent justifiées pour la publicité dans les pages jaunes du fait d'une augmentation du coût total en l'absence de cette forme de restriction. Même si ce point n'est pas évoqué explicitement dans leur texte, le travail de Busse et Rysman (2002) peut laisser prévoir une augmentation du coût total pour les publicitaires résultant de l'arrivée de nouveaux annuaires. Van Caspel (2002) se demande s'il est souhaitable d'ouvrir à la concurrence l'offre combinée de pages blanches/jaunes (p. 101).

⁹ Cf. Cremer et al. (1998a), p. 2.

¹⁰ Les biens privés sont des biens dont certains usagers peuvent être exclus (contrairement au cas des stations de radio) et pour lesquels l'arrivée d'usagers supplémentaires accroît les coûts marginaux (contrairement au cas des stations de radio).

¹¹ Cf. Cremer et Gahvari (2002).

¹² En l'absence de système national de santé géré par l'État, les hôpitaux privés peuvent être contraints de fournir des soins médicaux d'urgence aux patients non couverts par une assurance lorsque leur vie est en danger, comme aux États-Unis.

¹³ L'éducation et la santé diffèrent grandement des autres secteurs, en ce que les économies d'échelle peuvent être plus limitées, c'est pourquoi ces secteurs sont moins susceptibles d'entrer dans la catégorie des monopoles naturels méritant l'application de restrictions à l'entrée. Parallèlement, la consommation de ces services serait probablement beaucoup plus faible en l'absence de subventions de l'État. De ce fait, les subventions croisées au sein des secteurs de l'éducation et de la santé peuvent être très faibles, étant donné que peu de services seraient achetés dans des conditions commerciales, alors que la couverture de la subvention elle-même peut être particulièrement vaste.

mais une récente étude de la demande des consommateurs aux Pays-Bas fait apparaître que 2 % seulement des usagers se trouveraient nettement handicapés par l'arrêt de ce service¹⁴.

La définition des obligations de service non commercial se retrouve dans la législation de nombreux pays. La loi française de 1996 sur les télécommunications, par exemple, appelle service de télécommunications universel "la fourniture d'un service téléphonique de qualité à un prix abordable" et stipule que ce type de service doit être mis à la disposition de quiconque le demande (ministère français des Postes, des Télécommunications et de l'Espace (1996), art L.35-1). Cette loi définit un service téléphonique de qualité comme incluant un service téléphonique de base, des services d'annuaire, des cabines téléphoniques dans des espaces publics, et l'acheminement des appels aux services d'urgence. France Telecom est explicitement nommé en tant qu'opérateur responsable de la fourniture de services non commerciaux, parce que l'objectif est une couverture nationale. Néanmoins, tous les opérateurs ont l'obligation d'assumer gratuitement les appels à destination des services d'urgence. Les obligations de service non commercial sont financées par des taxes prélevées sur les prestataires de services.

Ces obligations de service se justifient principalement pour des raisons politiques et d'équité, mais peuvent aussi permettre de résoudre des problèmes d'externalités¹⁵ :

- Considérations politiques et d'équité
 - Objectifs de redistribution
 - Intérêts particuliers
- Externalités
 - Effets de réseau
 - Effets de consommation

Ces explications sont reprises successivement ci-dessous.

2.1 Redistribution pour des raisons politiques et d'équité

Les principales raisons de l'existence des obligations de service non commercial sont des considérations politiques et d'équité, notamment des objectifs de redistribution et la sauvegarde d'intérêts particuliers, tels que les intérêts des prestataires remplissant des obligations de service non commercial tant au niveau des entreprises que de leur personnel, mais aussi les intérêts de groupes de consommateurs¹⁶.

¹⁴ Cf. van Caspel (2002), p. 36.

¹⁵ Van Caspel et al. (2002) affirment que "décider de ce qui doit et ne doit pas être considéré comme un service universel relève essentiellement d'une prise de position politique" (p. 8). Cela ne signifie pas pour autant qu'il n'existe pas de bons arguments économiques pour classer un service dans cette catégorie. Cependant, lorsque ce type de décision est prise, l'analyse de politique économique sur laquelle elle se fonde est bien souvent insuffisante.

¹⁶ Cf. Alleman, Rappoport et Weller (2000) et Kelly (1994).

2.1.1 Objectifs de redistribution

Une des raisons d'être de la fourniture de services non commerciaux est la réduction d'inégalités au sein de la population devant la consommation¹⁷. Il est, certes, inévitable que des inégalités existent dans des économies de marché, mais la taxation ou la redistribution (ou la subvention) peut être le moyen de les réduire pour certains produits. Ainsi, les services non commerciaux sont souvent considérés comme répondant à cet objectif d'équité. Il faut toutefois veiller à ce que des groupes d'intérêts politiques ne fassent pas valoir leurs prétentions sous couvert d'objectifs de redistribution, lorsque cela ne se justifie pas. Il y a deux grandes catégories d'inégalités généralement avancées dans la discussion sur les obligations de service non commercial : les inégalités des revenus et les inégalités des coûts.

2.1.1.1 Différences de revenus

Dans la plupart des pays, on observe de fortes inégalités de revenu. Pour permettre aux usagers à bas revenu de profiter de produits tels que les services téléphoniques, il est possible de leur accorder une subvention de sorte que le prix ne soit pas aussi élevé pour eux que pour d'autres catégories d'usagers. Par exemple, les États-Unis ont lancé un service téléphonique "Lifeline" qui abaisse le coût mensuel d'une ligne téléphonique de base d'un maximum de 7 dollars pour les foyers à bas revenu répondant aux critères définis (Crandall et Waverman, 2000 : 9). En outre, le programme américain "Link-Up" subventionne la taxe de raccordement des foyers à bas revenu en leur accordant une somme pouvant atteindre 30 dollars. Ces deux programmes coûtent 422 millions de dollars et 42 millions de dollars respectivement, soit 2.43 dollars et 0.24 dollar par ligne locale, qu'il y a lieu d'imputer au fonds de financement des services non commerciaux. Les fonds permettant d'assurer ces subventions sont constitués par des taxes prélevées sur les usagers de services de télécommunications.

Les inégalités en matière de revenu ne sont pas telles que les usagers à bas revenu n'aient pas les moyens d'avoir le téléphone. Cependant, il peut exister d'autres secteurs dans lesquels des usagers à bas revenu n'ont véritablement pas les moyens de payer un service indispensable à leur survie. Le secteur de la santé en est un exemple. La couverture maladie universelle est une des obligations de service non commercial les plus coûteuses qu'ont légalement adoptées de nombreux pays Membres de l'OCDE. La couverture maladie universelle se justifie en grande partie au titre de la justice sociale. Toutefois, la couverture universelle pose un problème : en effet, des prix subventionnés génèrent une consommation excessive, ce qui se solde par un résultat inefficace. Les inefficacités sont parfois inévitables. Des versements directs au profit des malades seraient en théorie la meilleure solution. Or, elle n'est pas praticable, car alors tout le monde serait alors incité à se dire malade. Le système de gestion des versements directs deviendrait extrêmement lourd et le contrôle des malades pourrait se révéler très coûteux, voire, dans certains cas, impossible. Si, au lieu de procéder à des versements directs, les prix des soins sont abaissés grâce à une subvention, la redistribution se fera alors mieux au profit des malades, mais au prix d'une surconsommation.

¹⁷ Lorsqu'on s'intéresse aux effets distributifs, on recherche normalement une répartition optimale de Pareto, pour des raisons d'efficacité. La répartition optimale de Pareto veut qu'aucun individu ne puisse réaliser un gain sans entraîner une perte proportionnelle pour quelqu'un d'autre, pour un résultat donné. L'ensemble de toutes les répartitions optimales de Pareto est vaste et le choix d'une distribution particulière aux limites doit se fonder sur un principe de justice redistributive. Rawls (1971) affirme que la justice redistributive implique une redistribution de façon à maximiser la valeur de ce qui est distribué pour les personnes les plus défavorisées. Dans cette optique, et plus largement dans une optique utilitaire, les subventions croisées pour financer un service universel peuvent être considérées comme un facteur améliorant la justice redistributive. Pour une critique de Rawls, cf. Mueller (1989).

2.1.1.2 Différences de coûts

Lorsque les coûts diffèrent considérablement d'une catégorie d'usagers à l'autre, de sorte que l'une des catégories doit payer un prix supérieur à celui qu'elle a les moyens de payer, les usagers pour lesquels le coût de la prestation est élevé acquittent des prix parfois inférieurs à ceux qui seraient pratiqués dans un cadre concurrentiel. Des différences de coûts apparaissent souvent entre zones géographiques. Un des moyens d'abaisser les prix demandés aux usagers dont la desserte coûte plus cher est d'appliquer un prix uniforme sur le plan géographique. Cela peut convenir à certains secteurs, notamment lorsque les coûts de transaction seraient élevés par rapport aux coûts du produit en question, comme dans le cas des timbres postaux¹⁸. Cependant, dans de nombreux secteurs, cette uniformité du prix n'est pas une décision économique, mais sociale, comme c'est le cas du tarif unique de l'abonnement téléphonique mensuel.

Souvent, les différences de coûts sont dues à des différences de densité de population et d'infrastructure entre zones urbaines et zones rurales. Ce sont surtout les responsables politiques et leurs électeurs qui font valoir les intérêts politiques locaux notamment des zones rurales ou à faible densité de population. Les problèmes de transports locaux sont souvent extrêmement sensibles, de même que les coûts d'accès à des services essentiels tels que les services téléphoniques ou le service postal. Lorsque la suppression d'un service local reliant une petite ville à un réseau de transport régional est envisagée, les électeurs locaux se mobilisent très souvent. En conséquence, il est extrêmement difficile de fermer des services à destination de zones non rentables.

Les consommateurs ruraux et les responsables politiques sont particulièrement influents dans les pays où la représentation parlementaire se fait sur une base géographique, et accorde ainsi un nombre de voix disproportionné à des régions peu peuplées. En outre, lorsque le gouvernement fédéral finance des services locaux, les politiciens locaux peuvent alors se montrer des défenseurs beaucoup plus ardents du service universel qu'ils ne l'auraient été s'ils avaient dû financer ce service universel par les recettes des impôts locaux. Lorsque le financement fédéral est important et que les intérêts locaux s'expriment par l'intermédiaire d'organes politiques généraux ou d'instances de réglementation du service public, les textes législatifs réglementaires visent davantage à répondre à des considérations d'ordre politique qu'à un objectif d'efficacité économique ou de concurrence.

De nombreux pays Membres de l'OCDE veillent à ce que les tarifs mensuels et les tarifs calculés en fonction de l'utilisation soient identiques dans les zones rurales et urbaines pour les services téléphoniques locaux. Or, les coûts marginaux à long terme peuvent varier de 1 à 10. Certes, certains de ces coûts sont des coûts fixes, mais en l'absence de subventions provenant du budget général, tous ces coûts doivent être couverts par les usagers¹⁹. Par exemple, en appliquant trois modèles différents de coût prospectif marginal à long terme pour les services locaux intéressant les particuliers, Crandall et Waverman se sont aperçus qu'en Californie les lignes desservant des zones rurales le plus faiblement

¹⁸ Crew et Kleindorfer (1998) considèrent que l'uniformité du prix d'acheminement du courrier entraîne des coûts de transaction plus bas que dans le cas de prix variant en fonction du lieu. Pour les usagers, le coût qu'implique le calcul du montant à payer pour envoyer une lettre peut être supérieur aux avantages potentiels de prix plus bas. De même, le coût pour la Poste de devoir vérifier le bon montant de l'affranchissement peut alourdir les coûts de traitement du courrier. En revanche, pour des articles plus coûteux comme les paquets ou le courrier express, les avantages peuvent être suffisants pour justifier la hausse des coûts de transaction. Toutefois, un simple système de tarification dans lequel l'affranchissement du courrier local est moins cher que celui du courrier non local ne risque guère de générer de lourds coûts de transaction, d'autant plus que le courrier est généralement déjà trié par les usagers entre destination locale et destination non locale. En Espagne, par exemple, jusqu'à une période récente, il y avait deux tarifs, l'un pour le courrier local et l'autre pour le courrier non local.

¹⁹ Souvent, ce coût se trouve récupéré dans un système de tarification en deux parties.

peuplées peuvent coûter entre 8.3 et 23.1 fois plus que les lignes desservant les zones urbaines le plus densément peuplées. Le tableau 1 récapitule ces prix.

Tableau 1. Coûts mensuels selon plusieurs modèles de calcul du coût prospectif marginal à long terme, Californie

Modèle	0-5 lignes/square mile***	>10 000 lignes/square mile***	Rapport coût de faible densité/ coût de forte densité
Hatfield	\$105,76	\$9,61	11,0
BCPM*	\$167,03	\$20,03	8,3
HCPM**	\$275,36	\$11,87	23,1

*Benchmark Cost Proxy Model

**Hybrid Cost Proxy Model

*** Un square mile = 2.589 km²

Source: Crandall et Waverman (2000), estimations des auteurs, p. 108.

Deux problèmes de fond se posent lorsqu'on pratique des prix sensiblement inférieurs aux coûts et qui ne se justifient pas par des effets de réseau : des services peuvent être sur- ou sous-demandés par rapport à leur niveau d'efficacité et un service qui coûte plus cher (par exemple, les liaisons filaires) peut être fourni alors qu'il existe un service concurrent moins coûteux qui n'est pas couvert par l'obligation (par exemple, le sans-fil). Des tarifs inférieurs au coût d'un service vont souvent de pair avec des tarifs sensiblement supérieurs au coût du service, comme lorsqu'il existe un tarif uniforme pour les zones dont la desserte implique un bas coût et un coût élevé. Lorsqu'il y a des différences de coût d'une région à l'autre, on observe une distorsion moins forte si les coûts sont répercutés dans les prix, ou si l'on abaisse les coûts de desserte des zones à coût élevé. Tant qu'il n'y a pas conflit avec un des objectifs de redistribution, les coûts peuvent être répercutés sur les prix des produits fournis dans le cadre des obligations de service non commercial. En Espagne, par exemple, les tarifs postaux de première classe étaient moins élevés pour le courrier intra-urbain que pour le courrier inter-urbain, jusqu'à ce qu'un tarif national uniforme soit mis en place en 1998²⁰. L'adoption de prix fondés sur les coûts peut être onéreuse et il faut tenir compte de ces coûts lorsqu'on décide d'adopter ou non un tarif non uniforme²¹.

2.1.2 Intérêts particuliers

Une source majeure d'influence politique émane des entreprises qui assument les obligations de service non commercial. Il s'agit souvent d'anciens monopoles d'État et, même lorsqu'ils sont privatisés, il leur arrive encore de fonctionner d'une manière très inefficace. Leurs dirigeants, de même que leurs représentants du personnel, ont fortement intérêt à éviter la concurrence, parce que celle-ci pourrait se solder par une diminution des profits, de l'emploi et des salaires dans l'entreprise. Dans la mesure où les entreprises sont de gros employeurs, leurs salariés peuvent aussi constituer de fortes majorités de blocage s'opposant à la concurrence dans leur propre secteur.

Dans de nombreux pays, les entreprises et leurs salariés détiennent souvent un énorme pouvoir politique. Ce pouvoir est d'autant plus grand que l'État possède une part importante de l'entreprise,

²⁰ On pourrait considérer que ces deux services de courrier sont des produits différents, bien que rares soient les systèmes postaux nationaux qui les considèrent comme des produits différents. Dans la mesure où il s'agit du courrier de première classe, l'exemple montre que les obligations de service universel n'impliquent pas toujours des tarifs uniformes.

²¹ Dans le service postal, les coûts liés à une tarification non uniforme incluent les coûts de gestion de différents facteurs tels que le tri et la diminution des économies d'échelle et de gamme.

puisque'il peut alors chercher à accroître la valeur de son investissement en maintenant des barrières à l'entrée. De même, les instances de réglementation peuvent chercher à assurer la santé financière d'une entreprise, en particulier si l'on considère que les entreprises doivent fonctionner sans l'aide de l'État ou si l'on redoute une faillite²². D'une manière générale, la concurrence amoindrit la vigueur financière d'un opérateur historique²³. En affirmant la nécessité de répondre à des obligations de service non commercial les instances de réglementation, les responsables politiques et les entreprises peuvent justifier un statut particulier ou des délais dans l'ouverture à la concurrence. La protection contre la concurrence peut alors devenir un objectif commun des organismes de réglementation, des décideurs politiques et des entreprises privilégiées par l'État. Bref, l'argument du service universel peut se transformer en un instrument de mainmise sur la réglementation (Kelly (1994)).

Curieusement, dès lors que l'entrée sur le marché est autorisée, les restrictions de prix liées aux obligations de service non commercial peuvent profiter aux nouveaux arrivants, surtout si l'opérateur historique est contraint de pratiquer des prix réglementés alors que les nouveaux arrivants ne le sont pas. De ce fait, après la libéralisation, les nouveaux arrivants peuvent être incités à militer en faveur de contraintes de tarification liées aux obligations de service universel. En particulier, ils peuvent profiter de la possibilité de choisir les services qu'ils fournissent, possibilité qui peut leur être offerte lorsque les opérateurs historiques sont tenus de pratiquer des prix sensiblement supérieurs aux coûts pour les usagers en zone urbaine et qu'ils n'ont pas la possibilité de différencier leurs prix en réponse à l'entrée d'un nouvel arrivant.

Outre les opérateurs historiques, le personnel et les nouveaux concurrents, les intérêts particuliers peuvent concerner des groupes de pression régionaux. Par exemple, des groupes de pression peuvent demander des avantages pour les usagers en zone rurale. Comme ils auront sans doute du mal à convaincre les responsables politiques et le grand public d'effectuer des transferts directs au profit des usagers ruraux, ils pourront faire valoir la nécessité de pratiquer des tarifs uniformes, et obtenir ainsi une forme de subvention plus acceptable sur le plan politique dans la mesure où elle est invisible et admise à titre de mesure d'équité.

2.2 Retombées

L'argument fondé sur l'efficacité, susceptible de justifier les obligations de service non commercial, est le suivant : lorsqu'on subventionne un service, les retombées positives de l'utilisation du service en question compensent les coûts de sa fourniture. Par exemple, la possibilité d'appeler des services d'urgence sur un réseau public peut avoir des retombées positives importantes pour d'autres usagers, par exemple quand un usager signale aux pompiers un incendie dans une maison voisine.

2.2.1 Effets de réseau

Il y a effet de réseau lorsqu'un individu tire profit de l'augmentation du nombre de personnes raccordées au réseau. Plus précisément, si l'on s'intéresse aux secteurs dans lesquels il y a des effets de réseau, lorsqu'un service relève d'un secteur où des effets de réseau peuvent se manifester, comme dans le cas du service téléphonique, l'individu qui décide de se raccorder à un réseau tient compte, pour prendre sa décision, de ses coûts et avantages propres, mais pas des avantages obtenus par d'autres membres du

²² Cela fait longtemps, par exemple, que le Congrès des États-Unis cherche à mettre un terme aux subventions apportées au service de transport de voyageurs d'Amtrak.

²³ Les lois sur la faillite diffèrent d'un pays à l'autre, mais dans certains cas la défaillance de l'opérateur historique peut entraîner l'arrêt d'un service. La crainte d'un tel arrêt, de même que le désir d'éviter la prise de contrôle d'un secteur par des intérêts étrangers, peut fortement inciter les pouvoirs publics à préférer un ancien opérateur historique.

réseau. L'importance de ces autres avantages fait l'objet d'un débat en ce qui concerne les services bidirectionnels, mais ces effets de réseau constituent une externalité qui n'est pas prise en compte par l'individu décidant de se raccorder à un réseau²⁴.

Il ressort d'une situation de ce type que l'avantage social résultant du fait qu'une personne se raccorde à un réseau est plus grand que l'avantage personnel résultant du fait de se raccorder à un réseau. En conséquence, même un prix égal au coût marginal de raccordement risque de n'entraîner qu'un nombre insuffisant de raccordements au réseau, parce que les consommateurs à la marge ne tiendront compte que de leur avantage personnel résultant de leur raccordement, et non de l'avantage marginal des autres individus. L'Annexe 1 présente deux cas de figure. Abaisser le coût de raccordement au réseau par le biais des obligations de service non commercial peut contribuer à accroître la taille du réseau et induire ainsi des avantages sociaux.

Certes, les effets de réseau peuvent expliquer certains aspects des services non commerciaux, mais ils reposent sur l'hypothèse que, en l'absence d'avantages fournis par le service non commercial, les usagers à bas revenu ou dont la desserte est très coûteuse ne choisiront pas de se connecter au réseau. Ce peut effectivement être le cas des usagers du téléphone dans des zones rurales dont la desserte est coûteuse, mais il est moins sûr que les usagers à bas revenu en zone urbaine ne seraient pas prêts à payer le prix non subventionné du service téléphonique. En outre, s'agissant des usagers ruraux, il ne semble guère que l'avantage pour les résidents urbains soit supérieur au coût social du subventionnement des lignes téléphoniques rurales.

On discute encore pour savoir si le haut débit doit être couvert par les obligations de service non commercial. L'une des principales raisons justifiant ce débat est l'ampleur des effets de réseau résultant d'une large couverture. Cependant, rien ne prouve à l'heure actuelle que l'ampleur des avantages pour le réseau est telle que la fourniture de ce service doit être subventionnée pour certaines catégories d'usagers. Il y a un point fondamental et pourtant souvent négligé dans le débat sur le haut débit : on cherche à assurer un bon accès à Internet aux usagers à bas revenu, mais on oublie que beaucoup de ces usagers ne tireront pas profit de ces obligations tout simplement parce qu'ils ne possèdent pas d'ordinateur. Un autre point tout aussi important est le fait que l'utilisation d'Internet est souvent liée à des produits dont le subventionnement ne procure qu'une faible valeur de caractère social²⁵. Une récente étude de l'OCDE a mis en évidence le fait que l'accès au haut débit ne mérite probablement pas de relever à l'heure actuelle du service universel²⁶.

Même dans les secteurs d'activité dans lesquels les effets de réseau sont manifestes, comme les télécommunications et la Poste, des caractéristiques des obligations de service universel, telles qu'une tarification uniforme, n'ont pas nécessairement de lien avec les effets de réseau. En outre, il n'est pas certain que les effets de réseau se soldent en fait par un faible niveau de participation au réseau, parce que, même en l'absence de réglementation, l'opérateur du réseau peut avoir intérêt à accroître la pénétration auprès des usagers, puisque les effets de réseau rendent l'utilisateur davantage prêt à payer le service.

²⁴ La démonstration de la présence de ces effets de réseau dans des secteurs autres que ceux des communications, notamment l'électricité ou le gaz, est beaucoup plus complexe et éventuellement non pertinente.

²⁵ Les usages les plus courants de l'Internet à haut débit sont la copie de musique de variété et la pornographie.

²⁶ Cf. OCDE (2003). Crandall et Waverman (2000) considèrent également que le haut débit ne mérite pas de relever d'une obligation de service universel.

2.2.2 Effets de consommation

On peut justifier que certains services relèvent des obligations de service non commercial en faisant valoir des retombées concernant le bien général d'ordre social ou la défaillance du marché. Le bien social peut être, par exemple, le renforcement de la cohésion nationale, la stimulation du développement régional, l'aide au fonctionnement de la démocratie et le respect de l'obligation éthique de ne pas priver les individus des services indispensables au maintien d'un niveau de vie minimal²⁷. On peut parler de défaillance du marché, par exemple, dans le cas de maladies contagieuses. Une campagne de vaccination contre une maladie contagieuse peut avoir une valeur publique beaucoup plus élevée que sa valeur privée, contrairement à la plupart des soins médicaux, qui présentent un coût marginal non négligeable et qui constituent un bien privé. Si les malades atteints de maladie contagieuse se trouvent dissuadés de se faire soigner du fait des coûts privés des soins et si l'absence de soins provoque une épidémie, alors la couverture maladie universelle peut réduire les épidémies. Ces arguments du bien social et de la défaillance du marché sont parfois flous et bien souvent n'expliquent pas de façon convaincante pourquoi certains biens peuvent mériter de relever des obligations de service non commercial alors que d'autres ne le méritent pas.

2.3 Évaluation de l'impact d'une obligation

Il existe de bonnes raisons d'ordre politique pour appliquer des obligations de service non commercial, mais il est important de voir si ces obligations contribuent réellement à atteindre les objectifs des pouvoirs publics. Souvent, l'un des objectifs des programmes de service universel est de contribuer à accroître la pénétration du service auprès des personnes défavorisées de par leur revenu ou leur situation géographique. Cependant, même un programme bien conçu de subventions au profit d'usagers à bas revenu peut n'avoir qu'un impact très limité sur la pénétration du service. La méthode idéale pour mesurer l'impact d'un programme de subventions ciblées visant à élargir l'utilisation d'un service consiste à mesurer l'élasticité de la demande de ce service pour le groupe cible. Le calcul de l'élasticité de la demande peut être particulièrement utile pour déterminer quelles sont les formes de subvention le mieux à même d'accroître l'utilisation. Par exemple, des études portant sur le service téléphonique aux États-Unis montrent que l'abonnement au téléphone est sensible au coût de raccordement, mais qu'en revanche, il est relativement insensible au prix de l'abonnement mensuel²⁸. Selon ces études, si le but est d'adopter le service universel, il est plus efficace de subventionner le raccordement que l'abonnement mensuel.

La méthode de l'élasticité pour déterminer si le nombre d'abonnements augmente du fait des obligations de service ne peut pas toujours être utilisée car dans de nombreuses situations on ignore tout simplement l'élasticité de la demande. Il existe deux méthodes plus simples pour évaluer si le service universel se trouve facilité par les obligations de service non commercial. Lorsque les coûts diffèrent, par exemple d'une région à l'autre, des estimations des coûts propres à une région peuvent être effectuées qui indiquent dans quelle mesure les tarifs uniformes ne reflètent pas les coûts. Dans le secteur des télécommunications, par exemple, certains travaux montrent bien que le coût d'un service en zone rurale, bien que supérieur à la desserte des zones urbaines, ne s'en écarte pas de façon aussi spectaculaire que

²⁷ Dasgupta (1986) défend l'idée que certains aspects de la participation de l'État dans le marché renforcent la "liberté positive" par la prestation de biens tels que la nourriture, le logement, la santé et l'éducation, dont les individus ont besoin pour être des êtres pensants, actifs et agissants, alors que d'autres aspects de la participation de l'État tels que l'armée et la justice renforcent une "liberté négative", c'est-à-dire une liberté par rapport à toute coercition et ingérence de l'État.

²⁸ Cf. Alleman, Rappoport et Weller (2000), Crandall et Waverman (2000) p. 104, Garbacz et Thompson (1997) et Eriksson, Kaserman et Mayo (1998).

certains ont bien voulu le dire²⁹. Sur la base d'une gamme d'élasticités possibles, il est possible de procéder à une estimation des variations possibles du nombre des abonnements du fait de l'obligation de service non commercial.

Une autre approche consiste à étudier les habitudes du groupe d'utilisateurs censés être aidés par l'obligation de service non commercial. Si ce groupe, souvent soit à bas revenu, soit habitant en zone rurale, règle le problème de son besoin de service principalement en utilisant des substituts technologiques du produit relevant de l'obligation, on s'aperçoit alors que, en l'absence de prix subventionnés, le groupe cible achète encore un produit et obtient le service voulu. Par exemple, OFTEL (2002) constate que 74 % des utilisateurs ruraux possèdent un téléphone mobile. Cela prouve bien que si des services de téléphone fixe étaient fournis à un prix supérieur au prix pratiqué à l'heure actuelle, les utilisateurs en zone rurale qui abandonneraient alors le téléphone fixe viendraient augmenter le nombre d'utilisateurs du téléphone mobile. Il est indispensable de mettre à jour la définition des services avec l'arrivée des nouvelles technologies. Dans l'ensemble, si le but d'une obligation est d'accroître la pénétration d'un service, alors il faut évaluer dans quelle mesure ce but est atteint³⁰.

Un second objectif des obligations de service non commercial peut être la redistribution des revenus, en particulier au profit des utilisateurs à bas revenu. On peut évaluer dans quelle mesure ce but est atteint en regardant l'ampleur du transfert effectué avec une tarification uniforme et en la comparant aux transferts qui pourraient être réalisés, à un coût global analogue, avec un programme de subventions ciblé et avec un financement sur le budget de l'État par opposition à des subventions croisées. En réalité, les obligations de service non commercial risquent d'inverser le sens de la redistribution. Par exemple, dans des programmes conçus pour aider les abonnés dont la desserte coûte cher (comme avec un tarif uniforme entre utilisateurs résidant en zone urbaine et en zone rurale), aux États-Unis, la plupart des utilisateurs à bas revenu paient davantage au système qu'ils ne perçoivent de subventions car de nombreux utilisateurs à bas revenu habitent dans des zones urbaines dont la desserte se fait à bas coût³¹.

²⁹ Maher (1999) affirme que les prix fondés sur les coûts au niveau du bureau central local ne seraient pas beaucoup plus élevés pour les utilisateurs en zone rurale que pour les utilisateurs en zone urbaine.

³⁰ Mueller (1993, 1997) affirme que l'ampleur de la couverture géographique de la pénétration du tout premier système de téléphone aux États-Unis a été stimulée par la concurrence entre les réseaux non interconnectés de AT&T et les réseaux indépendants. À partir du moment où AT&T a bénéficié d'un monopole légal protégé par des brevets (c'est-à-dire une protection contre l'entrée de concurrents), la couverture du service s'est développée très lentement. À l'issue de 18 ans de monopole d'AT&T, lorsque les premiers brevets concernant le téléphone ont expiré en 1895, la pénétration du téléphone aux États-Unis était de 0.36 %. À l'issue des 17 années suivantes de concurrence entre AT&T et les opérateurs indépendants, le taux de pénétration a progressé d'un facteur de 18.9 pour atteindre 6.8 %. Au cours de la même période, l'Europe qui, d'une manière générale n'avait pas dans ce secteur la concurrence d'opérateurs indépendants, a connu une progression beaucoup plus faible de son taux de pénétration qui est passé de 0.25 % à 0.70 %.

³¹ Cf. Rosston et Wimmer (2000) qui donnent une comparaison des pourcentages de lignes et des pourcentages de subventions par catégorie de revenu. Ils montrent que 37.5 % des foyers percevant les plus hauts revenus sont en fait bénéficiaires de subventions nettes. On peut donc dire que dans une certaine mesure les foyers à bas revenu subventionnent des foyers à haut revenu. Ce transfert n'est guère surprenant puisque le transfert se fait principalement des zones urbaines au profit des zones rurales, et que beaucoup d'utilisateurs à bas revenu sont entassés dans des zones urbaines à forte densité de population alors que de nombreux foyers à revenu élevé résident dans des zones rurales ou des banlieues résidentielles. Une tarification uniforme est donc un instrument peu pertinent pour assurer une redistribution des revenus, contrairement à des subventions ciblées.

3. Monopole

Dans la mesure où les obligations de service non commercial existent, il faut rechercher la meilleure structure pour la fourniture de ces services. Dans de nombreux pays Membres de l'OCDE, la plupart des services considérés comme non commerciaux sont fournis de longue date par des monopoles d'État. La raison pour laquelle ces services étaient fournis par des monopoles était que les secteurs en question réalisaient d'importantes économies d'échelle et de gamme. Souvent, ces services s'accompagnent d'une tarification uniforme et de restrictions à l'entrée.

Beaucoup d'entre eux ont depuis été privatisés, mais malgré une ouverture à la concurrence, ils restent souvent le principal fournisseur d'un service dans leur pays. Pour ces fournisseurs dominants, le service non commercial est régulièrement utilisé comme une arme par l'opérateur historique préféré par l'État. Ce dernier affirme généralement qu'il ne peut continuer à fournir des services à perte s'il ne peut assurer une subvention croisée à partir de services bénéficiaires. L'argument revient à dire que les concurrents ne s'occuperaient que des usagers rentables, et qu'il faut donc interdire l'entrée.

Le point clé pour décider du bien fondé des restrictions à l'entrée est de savoir si les coûts du secteur sont sensiblement plus bas en présence d'un monopole que lorsqu'il y a deux ou plusieurs entreprises. Si les coûts sont plus bas lorsqu'il n'y a qu'une entreprise plutôt que deux, et si l'entrée sur le marché est néanmoins rentable pour un nouvel arrivant, alors les restrictions à l'entrée peuvent se justifier. Cet argument est moins convaincant lorsque l'opérateur historique en situation de monopole ne minimise pas ses coûts et que les coûts totaux pourraient être plus bas si la production plus efficace du nouvel arrivant se substituait à la production du monopole. (Pour une discussion plus approfondie de ces points, voir l'Annexe 2.)

Une deuxième question de nature à déterminer le bien-fondé des restrictions à l'entrée est de savoir si la pénétration des services risque de s'affaiblir après l'introduction du nouvel arrivant. Crew et Kleindorfer (2000b, 2001) montrent qu'une spirale descendante risque de s'enclencher dans laquelle, lorsque le nouvel entrant attire des clients rentables, le coût par usager de la desserte des clients restants augmente, au point que l'opérateur historique doit encore relever son tarif uniforme et de ce fait perdre encore davantage de clients. Dans certaines conditions, cette spirale peut être si vertigineuse que l'obligation de service universel ne peut plus être assumée, l'opérateur historique devenant insolvable. Crew et Kleindorfer (2003) montrent que ce problème est moins grave lorsque l'opérateur historique dispose d'une certaine marge de manoeuvre pour fixer ses prix. En outre, une fois que des mécanismes fiscaux sont en place, c'est-à-dire que les nouveaux entrants, ou les autres, contribuent en fait à l'obligation de service universel, il n'est pas certain que la spirale descendante reste une véritable menace³². Si on la redoute néanmoins, une analyse empirique peut apporter des indications utiles sur les effets probables de l'entrée sur le marché d'un nouvel arrivant. Cohen et al. (2003) montrent que le nombre de circuits de distribution aux États-Unis sur lesquels de nouveaux arrivants pourraient pratiquer un écrémage est très limité, parce qu'il n'existe qu'un nombre relativement restreint de circuits hautement rentables. En conséquence, la hausse moyenne des prix nécessaire sur les circuits restants n'aurait pas besoin d'être très importante pour compenser l'écrémage.

Les restrictions à l'entrée peuvent se justifier dans certaines circonstances, mais de nombreuses raisons jouent en faveur d'une ouverture à la concurrence. L'une des plus importantes est le fait que l'entrée

³²

L'hypothèse de base sur laquelle se fondent ces modèles est que l'opérateur historique continue à assumer une obligation de service universel, même si les concurrents se trouvent en mesure d'offrir les mêmes services (et moins cher). Valletti et al (2002) traitent de l'interaction entre tarification uniforme et contraintes de couverture. En présence d'une concurrence, le principe de la tarification uniforme peut se solder par une moindre couverture de la part de l'opérateur historique et du nouvel entrant.

sur le marché de nouveaux arrivants peut améliorer l'efficacité d'un marché, surtout si l'opérateur historique ne réduit pas au minimum les coûts. Peut-être ne le fait-il pas parce qu'il ne produit pas son maximum compte tenu de la structure de son capital et de sa main-d'oeuvre ou parce que ses coûts de capital et de main-d'oeuvre sont supérieurs au niveau approprié. Les coûts du capital peuvent être trop élevés du fait de l'achat de biens d'équipement excessifs (notamment du point de vue de la qualité) ou du paiement d'un prix trop élevé pour ces biens d'équipement. De ces deux facteurs, c'est la bonne structure de réseau et la qualité qui sont particulièrement difficiles à observer pour une instance de réglementation. Les coûts de la main-d'oeuvre peuvent être excessivement élevés soit du fait d'une main-d'oeuvre pléthorique, soit du fait de salaires trop élevés. Wachter et al. (2001) considèrent que le salaire des postiers aux États-Unis est peut-être de 36.2 % supérieur aux normes de rémunération à un niveau comparable dans le secteur privé. En outre, les salaires entrent pour près de 80 % dans les coûts des services postaux. Pour les services postaux, l'ouverture à la concurrence ferait peser de lourdes contraintes sur la capacité du service postal à maintenir de tels salaires élevés. Cependant, il peut y avoir d'autres moyens de limiter les avantages de salaire, par exemple en franchisant la distribution du courrier, moyens qui doivent être considérés comme des contraintes potentielles, mais qui sont peut-être moins acceptables sur le plan politique³³.

Supposons maintenant que l'opérateur historique soit un fournisseur relativement efficace de sa production. L'argument selon lequel les restrictions à l'entrée se justifient peut être contesté, à au moins trois titres. D'abord, les opérateurs historiques ne disent peut-être pas la vérité lorsqu'ils affirment qu'ils ont de nombreux clients non rentables. C'est notamment le cas lorsque les coûts d'efficacité sont sensiblement inférieurs aux coûts réels. Ensuite, d'autres entreprises peuvent être mieux à même de desservir certains clients, même dans une situation de monopole naturel³⁴. Enfin, des subventions croisées peuvent être apportées de façon explicite par le biais d'une taxation appropriée ou d'une surtaxe qui n'entrave pas la concurrence.

L'expérience a prouvé à maintes reprises qu'une libéralisation peut être tout à fait réussie en présence d'obligations de service non commercial, et les usagers ont largement bénéficié d'une intensification de la concurrence. Néanmoins, de nombreux pays Membres continuent d'accorder un traitement privilégié aux anciens monopoles d'État et cette aide, qu'elle soit d'ordre financier ou réglementaire, rend difficile l'entrée sur le marché. L'aide apportée aux services non commerciaux est le prétexte donné pour accorder un traitement préférentiel aux anciens opérateurs historiques, puisqu'ils sont aussi généralement les prestataires de services non commerciaux, et pour justifier des transferts des nouveaux concurrents au profit de l'opérateur historique..

³³ Dans la mesure où les services sont fournis à un coût supérieur au coût minimum, il peut y avoir d'autres solutions préférables à l'ouverture à la concurrence. Par exemple, l'arrivée d'un entrant peut se traduire concrètement par le fait qu'un deuxième facteur double la tournée du facteur de l'opérateur historique. Même si les coûts de ce dernier tombent jusqu'au niveau d'efficacité du fait de la concurrence, et en supposant que le nouvel entrant ait des coûts de main-d'oeuvre efficaces, le service de distribution du courrier coûtera plus cher qu'avant l'ouverture à la concurrence tant que les coûts de l'opérateur historique ne seront pas supérieurs de plus de 100 % au niveau efficace. Une autre manière de faire baisser les coûts de l'opérateur historique serait d'externaliser ou de franchiser la distribution du courrier au lieu de confier cette tâche à du personnel employé par l'opérateur. L'externalisation de la distribution du courrier est déjà réalisée pour un petit nombre de tournées en zone rurale aux États-Unis. En 2001, des entreprises indépendantes ont desservi près de 1.7 million de boîtes à lettres (cf. Crew et Kleindorfer (2003)). Haldi et Merewitz (1997) ont calculé que le service postal des États-Unis réalise 38 à 47 % d'économies en sous-traitant les tournées les plus coûteuses. Ils affirment qu'il serait possible de supprimer les pertes réalisées sur les tournées les moins rentables en les sous-traitant.

³⁴ En d'autres termes, le fait de réduire au minimum les coûts d'une production donnée ne signifie pas que les quantités de production choisies soient les bonnes.

3.1 Le segment est-il vraiment non rentable ?

Si l'opérateur historique n'encourt aucun risque ni perte potentielle en affirmant que des usagers rentables sont non rentables, il a bien sûr tout intérêt à faire valoir qu'il a besoin de subventions pour assurer des services non commerciaux. Cependant, lorsque les anciens opérateurs historiques sont invités à présenter une demande de compensation pour les services non commerciaux, étant entendu qu'ils risquent de perdre leur situation de monopole dans le secteur pour lequel ils seraient amenés à réclamer une compensation pour les services non commerciaux, bien souvent ils ne le font pas.

Il est souvent difficile de déterminer dans quelle mesure des usagers sont réellement non rentables, compte tenu de l'infrastructure déjà existante pour les desservir (souvent construite lorsque l'entreprise était nationalisée). Dans certains cas, il apparaît que ces usagers pourraient être rentables. A cet égard, le comportement de Deutsche Telekom (DT) témoigne de ce que sont les services non commerciaux dans le secteur des télécommunications.

DT a été déclaré opérateur dominant en Allemagne et, à ce titre, est désigné comme le prestataire de service universel. Depuis 1998, DT a le droit de demander une subvention à l'État pour fournir les services non commerciaux, calculée selon une méthode de son choix et fondée sur une définition des zones géographiques également de son choix³⁵. Cependant, si DT présente une demande de compensation à l'instance allemande de réglementation des télécommunications Reg TP, une enchère sera ouverte pour la prestation des services que DT juge non rentables pour une zone géographique bien définie. Jusqu'à présent, DT n'a fait aucune demande de rémunération de services non commerciaux³⁶.

Cet exemple est intéressant parce que, si la fourniture d'un service est effectivement non rentable, les fournisseurs de services non commerciaux seraient alors ravis d'avoir la possibilité soit de percevoir une subvention, soit de perdre leur monopole dans une zone géographique non rentable. Le fait que DT n'ait déposé aucune demande de ce type montre sans doute que l'Allemagne a une densité de population suffisante pour que les lignes non rentables soient très peu nombreuses.

La réglementation allemande applicable aux demandes de subvention a l'avantage de faire en sorte que chaque demande de subvention s'accompagne du risque potentiel de perdre une part de monopole. Ainsi, l'opérateur qui dépose une demande doit d'abord s'assurer que la partie de son monopole pour laquelle il demande une subvention est bien non rentable. Avec ce mécanisme, seules sont déposées les demandes de subventions croisées véritables et sincères.

Si des usagers sont souvent jugés "inéconomiques", alors qu'en fait ils pourraient être rentables, c'est qu'il peut y avoir des avantages importants à être le fournisseur désigné d'un service non commercial. En fait, la Directive 2002/22/CE du Parlement européen et du Conseil du 7 mars 2002 stipule que "tout calcul du coût net du service universel doit tenir compte des coûts et des recettes, ainsi que des avantages intangibles résultant de la fourniture du service universel" (§ 19).

³⁵ Dans plusieurs autres pays de l'UE, comme les Pays-Bas, le fournisseur de services non commerciaux (KPN) a le droit, depuis 1998, de demander à l'État une subvention ou la rémunération des services individuels, mais la demande et la rémunération potentielle doivent porter sur le service à l'ensemble du pays, et non à une zone géographique restreinte. A ce jour, KPN n'a demandé aucune subvention.

³⁶ Cela s'explique sans doute par le fait que l'on considère que si une demande est faite, les usagers de DT seront finalement taxés dans le but de constituer un fonds de financement du service universel. Si la taxe porte sur des biens élastiques, il est possible qu'elle contribue à réduire les profits réalisés par DT sur ses clients rentables d'un montant supérieur à ce que rapporte la taxe collectée.

OFTEL a évalué les coûts et les avantages qui reviennent à British Telecom (BT) du fait qu'il est le principal fournisseur de service universel du Royaume-Uni, et s'est aperçu qu'en réalité les avantages étaient supérieurs aux coûts. OFTEL a estimé qu'en 1997 les coûts de fourniture du service universel pour British Telecom étaient d'environ 45 à 65 millions de livres sterling, comme le montre le tableau ci-dessous, alors que les avantages indirects pour BT étaient de 102 à 151 millions de livres sterling.

Tableau 2. Coût de l'obligation de service universel encouru par BT, par an

	Coût du service universel après ajustement
Zones non rentables	£ 5-10m
Usagers non rentables	£ 30-40m
Cabines téléphoniques non rentables	£ 10-15m
Total	£ 45-65m

Source: OFTEL (1999), § 4.11.

Tableau 3. Bénéfices tirés par BT du fait d'être le fournisseur du service universel, par an

	Bénéfices
Cycle de vie	£ 1-10m
Omniprésence	£ 40-80m
Image de marque et réputation de l'entreprise	£ 50m
Bornes téléphoniques	£ 11m
Total	£ 102-151m

Source: OFTEL (1999), § 4.5.

Les avantages pour BT découlent du cycle de vie des clients (des usagers non rentables peuvent devenir plus tard rentables), de l'omniprésence (un foyer qui déménage d'une région non rentable vers une région rentable sait qu'il peut obtenir le service voulu de BT), de la réputation de l'entreprise qui est connue pour fournir des services non rentables, et des bornes téléphoniques (des bornes non rentables peuvent devenir rentables au fil du temps, et les bornes non rentables constituent un support publicitaire permanent qui assure la promotion de l'entreprise). OFTEL a ramené ses estimations des avantages à un niveau proche de 61 millions de livres, et a conclu qu'en fin de compte le solde "pourrait être soit un léger coût net, soit un léger bénéfice net" (OFTEL, 1999 : §4.17). La conclusion d'OFTEL a été qu'aucune charge excessive nette ne pesait sur BT du fait de ses obligations de service universel et qu'il n'y avait pas lieu de "mettre en place un mécanisme de financement du service universel" (OFTEL, 1999 : §4.24).

Les exemples présentés ci-dessus concernent le secteur des télécommunications, mais il est également important de voir quels sont les avantages que présente le fait d'être le fournisseur du service universel dans d'autres secteurs. Par exemple, dans le secteur postal, l'opérateur historique perçoit un bénéfice non négligeable du fait de la vente des timbres puisque les usagers savent que l'opérateur historique assure un service universel. Si un service postal réduisait sa couverture à 99 % des destinations, les achats de timbres pourraient chuter même dans les zones toujours desservies. Ayant une incertitude sur les destinations non desservies, les usagers risqueraient alors de chercher d'autres moyens d'atteindre des destinations pourtant effectivement desservies. Le fait que le prix des timbres est bas et que les coûts de transaction pour obtenir des informations sur les destinations desservies risquent d'être relativement élevés pourrait se solder par une diminution sensible de la demande en raison de l'incertitude sur les destinations desservies. L'universalité a l'avantage de supprimer l'incertitude, en conséquence de quoi les ventes augmentent. En d'autres termes, la confiance dans le caractère universel du service peut stimuler les ventes partout, et ce volume de vente doit être pris en considération lorsqu'on évalue le coût de la fourniture d'un service universel.

3.2 L'opérateur historique est-il le mieux à même de fournir le service déficitaire ?

Il peut arriver qu'un opérateur historique en situation de monopole ne soit pas en mesure de fournir un service de façon rentable à une catégorie donnée d'utilisateurs, et que de nouveaux entrants, eux, puissent fournir un service rentable à la même catégorie d'utilisateurs, soit du fait d'une structure de coûts plus légère dans la même technologie que l'opérateur historique, soit du fait de l'adoption d'une technologie différente de celle de l'opérateur historique³⁷. En d'autres termes, l'opérateur historique n'est pas nécessairement le prestataire le plus efficace.

L'exemple de la mise aux enchères des droits de desserte de certaines régions non desservies du Chili montre que des opérateurs historiques peuvent estimer des résultats déficitaires dans certaines régions où, en fait, des résultats positifs sont possibles. Lorsqu'ils ont voulu étendre le service à des régions non desservies, les pouvoirs publics chiliens ont ouvert une enchère pour des subventions destinées à y construire des cabines téléphoniques. La première enchère s'est déroulée en 1995. L'opérateur historique a remporté un grand nombre des projets, mais un opérateur indépendant, Chilesat, a cherché à prendre pied sur un grand nombre de ces marchés et a demandé une subvention de 0 pour 16 projets différents, alors que l'opérateur historique ne s'était encore jamais positionné dans ces régions et réclamait une subvention (Cf. Banque mondiale, 1997 : 298-299).

On trouve un autre exemple de prestation de service rentable par une entreprise autre que l'opérateur historique dans les liaisons ferroviaires courtes aux États-Unis. Lorsqu'une entreprise, telle qu'un gros opérateur historique, décide de ne plus fournir un service et tente de mettre un terme à une obligation de service non rentable, ce retrait ne signifie pas nécessairement que le service ne va plus exister. Aux États-Unis, les grandes compagnies privées de chemins de fer ("Class I railroads") ont abandonné un très grand nombre de lignes depuis que le secteur a connu des difficultés financières dans les années 70. Avant cette époque, il était très difficile pour les grandes sociétés ferroviaires d'abandonner une ligne. Le Railroad Revitalization and Regulatory Reform Act de 1976 a modifié la réglementation des chemins de fer, amélioré les conditions d'abandon de services, et cet abandon s'est trouvé encore facilité par le Staggers Act de 1981 et le Northeast Rail Service Act de 1983. La plupart des lignes "abandonnées" ont été reprises par des petites sociétés de chemins de fer, soit des opérateurs régionaux (plus de 560 km de voies, mais moins de 250 millions de dollars de chiffre d'affaires) soit des exploitants de liaisons courtes (moins de 560 km de voies ou moins de 40 millions de dollars de chiffre d'affaires). Entre 1970 et 1990, les petites sociétés de chemins de fer sont passées de 15 000 à 70 000 km de voies.

Les exploitants de liaisons courtes exploitent en moyenne des liaisons de 106 km, avec, toujours en moyenne, 23 salariés pour un chiffre d'affaires inférieur à 5 millions de dollars. Il s'agit principalement de transporteurs de marchandises, qui ont exploité les anciennes lignes secondaires des grandes sociétés ferroviaires. L'avantage économique dont bénéficient les exploitants de liaisons courtes, qui leur permet de réussir là où les grandes sociétés ferroviaires ne peuvent y parvenir, résulte d'une combinaison de salaires plus bas et d'une grande flexibilité des conditions de travail. De fait, les coûts salariaux représentent près de 48 % des charges d'exploitation pour les grandes sociétés ferroviaires, ce qui constitue un élément de coût très lourd. Les compagnies locales paient environ 25 % de moins que les grandes sociétés ferroviaires, et offrent des avantages sociaux moins généreux. Ce qui importe surtout, c'est que les compagnies locales ont beaucoup plus de possibilités d'améliorer la productivité de la main-d'œuvre. En effet, les petites compagnies de chemins de fer ont pu négocier des conditions de travail leur permettant de réduire les

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Les formes de production d'électricité que sont la production distribuée et la production dispersée constituent des solutions de rechange au raccordement au réseau national. Lorsque le coût de la construction d'une capacité de raccordement à un nouvel usager potentiel est très élevé, il devient intéressant d'envisager d'installer une capacité de production sur place pour un usager. Cf. AIE (2002) pour une discussion détaillée de la production distribuée.

équipes (deux personnes seulement) bien avant que les grandes sociétés ferroviaires n'aient pu le faire, de ne pas limiter les parcours effectués par une même équipe, et d'utiliser le personnel pour exécuter des tâches autres que leur fonction première. Alors que 100 % des salariés des grandes sociétés ferroviaires sont syndiqués, la plupart des petites compagnies ont un personnel non syndiqué (Kopicki et Thompson, 1995 : 249-277).

Les exemples ci-dessus démontrent que des tiers fonctionnent parfois de façon plus efficace qu'un opérateur historique. Par ailleurs, ce dernier n'est pas toujours le mieux placé pour fournir le service car un autre prestataire peut réaliser des synergies mieux que lui. Le service des transports ferroviaires de voyageurs aux Pays-Bas donne un exemple de synergie au sein du secteur des transports. Des sociétés régionales d'autocars exploitent certaines lignes régionales. Elles sont bien adaptées au marché parce que, pour de nombreux déplacements, les voyageurs considèrent qu'il est important d'avoir une bonne coordination entre trajets par autocar et trajets en train, ce qui est plus facile à réaliser au sein d'une seule et même entité qu'entre plusieurs entités séparées. De même, les services postaux peuvent aussi réduire les coûts dans les zones dont la desserte coûte cher en modifiant le fonctionnement des bureaux de poste et le mode de distribution du courrier. Par exemple, les bureaux de poste peuvent être intégrés dans des magasins généraux de sorte que l'achat de timbres, la collecte du courrier et l'expédition de paquets soient considérés comme des services qui n'ont pas besoin d'être assurés par une administration d'État. Enfin, ayant remarqué que les circuits de distribution peuvent être partagés avec les journaux locaux, certaines administrations postales comme New Zealand Post ont expérimenté la distribution combinée de journaux et de courrier (OCDE, 1999 :251)³⁸.

3.3 Est-il possible d'avoir des subventions qui n'entravent pas la concurrence ?

La principale raison pour laquelle les entreprises en situation de monopole ne doivent pas faire valoir des arguments concernant la fourniture d'un service non commercial pour empêcher une libéralisation tient au fait que les subventions croisées internes ne sont pas le seul moyen de financer la fourniture de services prétendument non rentables³⁹.

Depuis longtemps, les subventions croisées internes au sein d'une grande entreprise, des usagers rentables au profit des usagers non rentables, est l'approche la plus couramment adoptée pour fournir des services non commerciaux. Cependant, même si cette approche limite les coûts administratifs qu'entraînerait un fonds pour le service universel, elle présente trois failles fondamentales :

- Les usagers non rentables paient un prix inférieur au coût de leur desserte, de sorte que l'utilisation globale du service augmente au-delà du niveau qui serait normal au prix concurrentiel, ce qui peut conduire à demander le service subventionné plutôt que d'autres services plus efficaces.
- Les usagers commerciaux paient un prix supérieur au prix qui leur serait demandé autrement, de sorte que leur consommation tombe au-dessous du niveau que l'on observerait au prix concurrentiel et peut aboutir à un remplacement de la solution efficace par des solutions moins efficaces.

³⁸ Aux États-Unis, lorsque les tournées de distribution du courrier sont assurées par des sous-traitants, la plupart d'entre elles sont effectuées par des services de distribution de journaux.

³⁹ En ce qui concerne les services d'urgence, en général l'acheminement de ces appels n'est pas le fait d'un seul fournisseur chargé de répondre à l'obligation de service non commercial, mais est assuré par tous les prestataires de services de téléphonie fixe et mobile, y compris les concurrents de l'opérateur historique anciennement en situation de monopole. Ainsi, dans la mesure où une rémunération est versée, tous les fournisseurs doivent percevoir cette rémunération.

- L'importance de la subvention croisée est occultée, et il est donc difficile de déterminer si elle est supérieure aux avantages sociaux.

Pour toutes ces raisons, il est souvent préférable d'opter pour le principe d'une subvention explicite et transparente. L'un des grands avantages de l'ouverture du marché à la concurrence est qu'il résout le premier problème et implique que la subvention devient mesurable. Nous verrons plus loin comment il y a lieu de financer cette subvention. Cependant, avant d'aborder le financement, nous devons d'abord voir la première étape de la fourniture d'un service non commercial, à savoir comment se définit un service de ce type. Comme la définition de ce type de service risque souvent de déboucher sur des résultats nettement contraires à la concurrence, il faut être très vigilant et bien définir le service en question.

4. Définitions des obligations de service non commercial

Les obligations de service non commercial peuvent être conçues de façon à entraver tout effort de libéralisation et d'ouverture à la concurrence. Nous allons aborder successivement ci-dessous l'impact que peuvent avoir sur la libéralisation trois grands aspects des définitions du service : le service lui-même, le prix du service, et la catégorie d'utilisateurs pouvant bénéficier de ce service.

4.1 Définition du service

La définition du service à fournir est un aspect-clé d'un service non commercial. De fait, les définitions peuvent avoir un fort effet anticoncurrentiel, c'est pourquoi il faut être très vigilant lorsqu'on les établit. Un grand nombre des problèmes qui se posent lorsqu'on veut définir les marchés de produits pertinents à des fins de politique de la concurrence se posent dans les mêmes termes en ce qui concerne les obligations de service non commercial. Le service fourni est souvent défini comme un service de base, avec l'indication d'un niveau minimum de qualité. Certaines définitions peuvent aller au-delà du service de base qui mérite l'obligation de service universel et la restriction à l'entrée.⁴⁰ Par exemple, dans les services postaux, les obligations de service non commercial peuvent préciser que le courrier de première classe des particuliers sera distribué dans un délai moyen de deux jours ouvrables, à raison d'une distribution une fois par jour pour la plupart des usagers⁴¹. Dans les services de télécommunications, les obligations de service non commercial peuvent stipuler que le service universel exige une ligne téléphonique filaire d'une certaine qualité audio fonctionnant pour la réception de tous les appels et l'émission d'un certain nombre d'appels, à l'exclusion des communications longue distance, par exemple. Certains pays envisagent d'inclure un nouveau service dans les obligations de service non commercial, à savoir l'accès à Internet ou l'accès au haut débit⁴².

La définition du service minimum est souvent indiquée en termes de nature physique du service. C'est là une erreur. Si l'on veut faire en sorte que les services soient fournis au coût le plus bas, il faut définir le service non commercial en termes de service perçu par l'utilisateur et non de description physique du service tel qu'il existe. Étant donné le délai de mise en place des réglementations, une définition d'un service physique risque de ne pas correspondre aux technologies pertinentes. Le service téléphonique

⁴⁰ Dans une décision récente sur l'affaire ASEMPE (Cour européenne de justice (2004)), la Cour européenne de justice a estimé que les obligations de service universel dans les services postaux, en vertu de la Directive 97/67/EC, ne couvrent pas une définition restrictive de la livraison pour compte propre et couvrent les mandats.

⁴¹ Le Royaume-Uni vient de proposer de ramener son service de distribution du courrier aux particuliers de deux fois à une fois par jour.

⁴² Aux États-Unis, la fourniture de l'accès au haut débit pour les écoles, les bibliothèques et les établissements médicaux a été rendue obligatoire par le 1996 Telecommunications Act, Section 254 (h) et est supervisée par la Federal Communications Commission (1997).

défini en termes de liaisons filaires peut dater de l'époque où la technologie du téléphone mobile était encore très hypothétique, mais la technologie a évolué, alors que la définition du service est restée la même. En conséquence, le service téléphonique serait mieux défini comme étant l'accès au réseau téléphonique primaire et non l'accès par ligne fixe au réseau téléphonique. Avec la technologie actuelle, il peut revenir moins cher de desservir un usager résidant dans une zone rurale avec une liaison sans fil qu'avec une liaison filaire. Dans les pays qui n'ont pas de réseau téléphonique filaire très développé, l'accès à un "service de téléphonie locale" par téléphonie mobile plutôt que par téléphonie filaire s'est révélé à la fois faisable et souhaitable⁴³.

En ce qui concerne les usagers à bas revenu, OFTEL s'est aperçu que le pourcentage de foyers britanniques utilisant un téléphone mobile et non une ligne fixe est passé de 5 % en mai 2002 à 8 % en août 2002, et que ces usagers ne disposant que d'un téléphone mobile sont principalement des jeunes et des personnes à bas revenu (OFTEL, 2002 : 8).

L'expérience du Mexique illustre bien l'impact de cette possibilité de substitution. Le Mexique a l'un des plus bas taux de pénétration du téléphone filaire de l'ensemble de la zone de l'OCDE. En conséquence, l'extension du réseau a été un grand objectif politique du Mexique. La Secretaría de Comunicaciones y Transportes (SCT), ainsi que les autorités des États du Mexique, ont lancé un programme de téléphonie rurale destiné à desservir les villages de 100 à 499 habitants. D'après le recensement de 1990, il y avait au Mexique 32 230 villages de cette taille non desservis par le téléphone. En 1995, le programme a été modifié pour faire intervenir les nouvelles technologies (telles que la téléphonie sans fil) dans le programme. Cofotel rapporte qu'au total ce sont plus de 21 000 localités qui ont pu être rattachées au réseau au cours de l'administration par l'équipe en place en 1999 (OCDE, 1999 : 277).

Un autre moyen de réduire les distorsions consiste à définir différemment le service lui-même dans les zones dont la desserte implique un coût élevé et dans les zones dont la desserte est à bas coût, de façon à réduire les coûts dans les zones dont la desserte implique un coût élevé. La distribution du courrier pourrait être moins fréquente dans les zones à plus faible densité de population que dans les autres. Par exemple, lorsque la Nouvelle-Zélande a révisé sa loi sur le service postal en 1998, elle a insisté pour que l'obligation sociale de New Zealand's Post prévoie la distribution du courrier six fois par semaine à 95 % des points de distribution. Ainsi, jusqu'à 5 % des points de distribution peuvent avoir un service de courrier à une fréquence inférieure à ce qu'elle est dans le reste du pays (OCDE, 1999:248). Dans le domaine des transports, on trouve un exemple comparable de substitution d'un mode de transport à l'autre. Par exemple, dans les pays où il existait un service ferroviaire de transport de voyageurs très fréquent, comme en France, l'autocar a avantageusement remplacé le train, comme dans la vallée de la Drôme. Le chemin de fer était un service non rentable, alors que les autocars coûtent beaucoup moins cher. Le service a donc été en grande partie transféré du rail à la route, avec maintien d'au moins un train par jour. Les principales leçons d'ordre politique à tirer de ce transfert sont les suivantes :

- Sur le plan politique, il est très difficile de supprimer un service ;
- Il est beaucoup plus facile de réduire la fréquence du service initial ;
- Le prix du service de substitution peut être inférieur au prix du service initial, en raison du coût plus bas du service de remplacement et des économies résultant de la suppression du service plus coûteux.

⁴³ De même, du fait d'une convergence des technologies des communications, certaines communications qui autrefois se faisaient par courrier se font maintenant par courrier électronique.

Le texte législatif ou réglementaire définissant un service mentionne souvent le prestataire de ce service. Cela peut être intéressant parfois, mais les décideurs politiques doivent être prudents lorsqu'ils prennent des décisions concernant le marché. Dans certains cas, du fait de la structure du réseau existant, il est évident qu'un seul exploitant peut fournir le service non commercial, comme c'est le cas de certains services postaux. De fait, les services postaux bénéficient notamment de forts rendements d'échelle croissants. Cependant, dans d'autres cas, plusieurs exploitants pourraient fournir un service, comme dans le cas des renseignements téléphoniques ou, éventuellement, des services téléphoniques locaux. La sélection d'un opérateur préféré à l'avance, soit par désignation explicite, soit par la mise en place de critères qui conduisent effectivement à présélectionner un opérateur, peut nuire à la concurrence qui autrement pourrait s'instaurer.

Encadré 1. Transports aériens régionaux en Norvège

En Norvège, les transports aériens sont considérés comme indispensables pour relier entre elles les différentes parties du pays, de la même manière que les transports ferroviaires de voyageurs sont considérés comme un service public de base dans beaucoup d'autres pays. L'importance particulière des transports aériens par rapport aux autres modes de transport tient à la grande dispersion de la population et à la géographie montagneuse coupée de nombreux fjords qui ralentit considérablement les transports ferroviaires et routiers de voyageurs. Dans ce cas, le transport aérien est souvent le mode de déplacement le plus efficace d'une ville à une autre. Par exemple, un vol de Stavanger à Oslo dure 45 minutes, alors que le même trajet en train ou en voiture peut prendre plus de 8 heures. La géographie combinée à la dispersion de la population conduit les Norvégiens à prendre beaucoup plus souvent l'avion que les habitants des autres pays d'Europe.

La géographie de la Norvège a une incidence non seulement sur les modes de transport mais aussi sur l'implantation possible d'aéroports. En effet, pour construire un aéroport, il faut disposer de préférence de vastes étendues plates, or celles-ci sont rares en Norvège. En conséquence, les pistes des aéroports doivent souvent être très courtes, et les avions doivent pouvoir assurer des décollages et des atterrissages courts (STOL).

En Norvège, avant 1998, Widerøe était le seul transporteur aérien régional de passagers. Il percevait une subvention de l'État pour fournir un service d'une qualité et à un prix réglementés. Cependant, les règlements de l'UE ont exigé qu'un appel d'offres concurrentiel pour une période de trois ans soit lancé pour les lignes relevant de l'obligation de service public (Règlement (CEE) No 2408/92 du Conseil, concernant l'accès des transporteurs aériens communautaires aux liaisons aériennes intracommunautaires, Article 4). La Norvège étant membre de l'Espace économique européen, elle a dû respecter ces réglementations européennes. A cet effet, les autorités responsables des liaisons relevant de l'obligation de service public ont fixé des normes de service avec, notamment, le nombre de places, les fréquences minimums, les tarifs maximums, les vols sans escale, et ainsi de suite. Ces normes ont été précisées séparément pour chaque liaison, sur la base du nombre prévisionnel de passagers, de la durée du vol, et des niveaux habituels de service sur chaque ligne. Ce qui est particulièrement important pour la desserte de certaines lignes, c'est que les Norvégiens définissent la qualité de service en partie en précisant la taille de l'avion qui doit être utilisé pour assurer une liaison avec un nombre minimum de sièges. En fait, comme en Norvège les pistes sont courtes, un seul avion répond à la fois à ce critère de taille et aux critères de décollage/atterrissage courts indispensables dans beaucoup d'aéroports norvégiens : le De Havilland Dash 8 (équipé d'un moteur particulier, à turbopropulseur de grande puissance). Apparemment, cet avion ne se construit plus, mais Widerøe possède une flotte de ce type d'avions spécifiquement adaptés et est le seul transporteur aérien scandinave qui puisse exploiter une flotte d'avions de type STOL offrant la capacité voulue de 30 places.

Lors du premier appel d'offres imposé par la réglementation européenne pour la desserte des liaisons relevant de l'obligation de service public, Widerøe a remporté toutes les concessions et a pu sensiblement réduire les subventions par rapport à leur niveau précédent. La procédure couvrait la période 1998-2000. Au cours du deuxième appel d'offres, couvrant la période 2001-2003, Widerøe a répondu de façon différenciée, avec des bas prix sur les liaisons susceptibles d'être ouvertes à la concurrence (avec des pistes plus longues) et des prix plus élevés sur les liaisons qu'il était le seul à pouvoir desservir (piste courte et capacité minimum requise), pour respecter la qualité de service telle qu'elle est définie. Or, ces tarifs plus élevés sont parfois supérieurs à ceux qui étaient pratiqués dans le cas des programmes subventionnés par État qui existaient avant 1998. Ainsi, sur ces liaisons, État se retrouve dans une

situation moins favorable qu'avant la libéralisation. La leçon à tirer est que lorsque la libéralisation porte sur un service, les pouvoirs publics doivent veiller à ne pas créer un monopole sur certaines liaisons.

Plus précisément, cet exemple illustre les points suivants :

- Si l'on définit un service de façon trop précise, on risque d'aboutir à une entreprise dominante de facto pour le service en question. Dans ce cas, l'exigence concernant la capacité de l'avion peut limiter les concurrents potentiels de Widerøe, seule compagnie disposant d'une flotte d'avions satisfaisant aux deux critères : capacité en sièges et STOL.
- L'appel d'offres fonctionne mal lorsqu'il n'y a que peu de concurrents potentiels. Lorsqu'une seule entreprise est en mesure de satisfaire au cahier des charges, l'offre tend à s'accompagner de la demande d'une très forte subvention de la part de l'État. Avec une seule entreprise susceptible de répondre à l'appel d'offres, il est moins coûteux pour l'État de fixer un prix à l'avance, calculé sur le coût prévisionnel de la desserte d'une liaison.

On remarque qu'il existe de nombreux types d'avions qui offrent moins de sièges que le Dash 8 et qui peuvent fonctionner sur des pistes STOL. En conséquence, les problèmes rencontrés par l'appel d'offres auraient pu être évités si les autorités norvégiennes avaient choisi de définir simplement le nombre de places offertes par jour et non la capacité en sièges de chaque avion.

Source : OCDE (2003a).

Pour encourager la plus forte concurrence possible pour fournir des services non commerciaux, la définition des services doit être :

- Neutre sur le plan technologique (comme dans le cas du service téléphonique de base au Mexique qui permet de substituer la téléphonie sans fil à la téléphonie filaire) ;
- Non préférentielle (ne pas préciser qu'un service doit être fourni par une entreprise spécifique, généralement l'opérateur historique) ;
- Bien ciblée sur le plan technologique (de sorte qu'un fournisseur bénéficiant d'un grand avantage dans une technologie ou une zone géographique ne puisse tirer parti de ce point fort dans d'autres technologies). Par exemple, les services de renseignements téléphoniques n'ont pas besoin d'être fournis par la même entreprise que celle qui fournit le service de téléphonie locale ;
- Étroitement ciblée sur le plan géographique (de sorte qu'un fournisseur qui bénéficie d'un grand avantage dans une zone géographique ne puisse en tirer parti pour se positionner dans d'autres régions). Par exemple, les cabines téléphoniques dans une région d'un pays n'ont pas besoin d'être exploitées par le même opérateur que les cabines téléphoniques implantées dans une autre région du pays ;
- Assortie de clauses de révision afin d'encourager un réexamen périodique (pour tenir compte du progrès technologique potentiel ou d'éventuelles modifications du marché).

4.2 Prix raisonnable

Le prix auquel il est possible d'avoir un service, fourni dans le cadre des services non commerciaux, est souvent inférieur au prix qui serait demandé par un monopoleur non soumis à la contrainte du service universel, et souvent inférieur au coût intrinsèque et au coût marginal de ce service. Le prix est souvent fixé de façon uniforme lorsque les coûts diffèrent selon la catégorie d'utilisateurs. Le service téléphonique en zone rurale est un exemple classique de situation dans laquelle le service est fourni à un prix inférieur à son coût marginal. En effet, le service téléphonique en zone rurale est souvent fourni

au même prix qu'en zone urbaine, bien que la construction d'un réseau téléphonique en zone urbaine coûte beaucoup moins cher, par abonné, que la construction d'un réseau rural. La boucle locale qui raccorde le domicile d'un abonné à l'autocommutateur est souvent beaucoup plus longue en zone rurale qu'en zone urbaine. Comme la ligne est plus longue, le coût initial de construction du réseau est plus élevé pour desservir l'abonné et, ensuite, les coûts de maintenance sont également plus élevés⁴⁴. En conséquence, le coût marginal à long terme par abonné est beaucoup plus élevé en zone rurale qu'en zone urbaine. Comme le prix d'accès à une ligne téléphonique est le même pour tous les abonnés, indépendamment du coût encouru, ceux-ci ne tiennent pas compte des coûts les concernant lorsqu'ils décident de consommer du service. Dans la mesure où la tarification masque les différences de coût réel, cela se traduit par une mauvaise affectation des ressources et par une taxe perçue sur d'autres usagers qui risque de ne pas être compensée par des avantages correspondants. Cette politique de tarification ne se justifie que pour un service considéré comme particulièrement important sur le plan social.

La fixation d'un "prix raisonnable" peut être particulièrement importante pour la concurrence et la libéralisation. Si le prix raisonnable est fixé à un niveau inférieur au coût marginal de fourniture du service et s'il existe un autre service sur le marché susceptible de le remplacer à un coût moindre, les usagers choisiront le service le moins cher, même si celui-ci peut être plus coûteux à fournir. C'est ce qui risque de se passer dans le cas du service téléphonique en zone rurale. Le "prix raisonnable" peut être fixé à un niveau très bas pour l'accès à une ligne fixe, alors qu'en fait la téléphonie sans fil pourrait revenir moins cher dans certaines zones rurales. Cependant, les usagers choisiront la ligne fixe, option qui n'est pas efficace sur le plan économique, si les signaux de prix ne reflètent pas les coûts relatifs.

4.3 Catégories d'usagers

D'une manière générale, les obligations de service non commercial s'adressent à une catégorie d'usagers bien définis. Dans de nombreux cas, ces obligations peuvent s'adresser à tous les usagers qui demandent un service. Par exemple, l'acheminement du courrier de première classe est généralement assuré à tous les usagers au même prix, quelle que soit la destination nationale⁴⁵. L'obligation peut être de grande portée, mais les usagers qui en bénéficient sont ceux qui n'achèteraient pas ou ne recevraient pas le service dans un environnement pleinement commercial. C'est le cas, par exemple, du service téléphonique de base, fourni à un prix uniforme aux usagers des zones urbaines et rurales ; normalement, les usagers non rentables sont les résidents ruraux. Les résidents urbains peuvent être desservis sans aucune subvention. Ainsi, l'obligation s'applique techniquement à "tous" les usagers, mais une petite catégorie seulement d'usagers relève des services non commerciaux.

Dans d'autres cas, les obligations de service non commercial peuvent être limitées à une catégorie donnée d'usagers. Lorsque l'obligation est motivée par un souci de redistribution, un seul segment de la population peut avoir droit à ce service, par exemple les personnes à bas revenu ou les écoles. Il est utile de veiller à bien identifier les véritables bénéficiaires des obligations de service non commercial. Lorsque les pouvoirs publics décident de libéraliser un secteur, il est extrêmement important de savoir qui seront les bénéficiaires du service universel. Cela permet aux pouvoirs publics de mieux cibler les aides financières, telles que les subventions, ou de décomposer les activités d'une entreprise entre segments rentables et segments non rentables.

Les pays Membres de l'OCDE classent des services très différents dans la catégorie des obligations de service non commercial ou universel.

⁴⁴ Cependant, le coût de pose d'une ligne en milieu urbain (y compris les coûts de saturation au cours de la construction) peut être plus élevé, les droits de passage peuvent être plus difficiles à obtenir.

⁴⁵ On remarquera que les organismes à but non lucratif peuvent parfois bénéficier d'une remise.

Une fois qu'un service réellement non commercial a été bien défini, il faut trouver une méthode appropriée de financement du service qui soit favorable à la concurrence.

5. Financement des obligations de service non commercial dans un régime libéralisé

Après la libéralisation, la présence de plusieurs fournisseurs d'un service est très profitable aux usagers dans le segment potentiellement concurrentiel. Parallèlement, les usagers appartenant au segment non ouvert à la concurrence ne voient guère d'intérêt dans la libéralisation. Cependant, le mode de financement du service pour le segment non concurrentiel change notablement. Il est évidemment raisonnable que le fournisseur des services au segment véritablement non rentable perçoive des subventions financières. Premièrement, le montant des subventions doit dépendre du coût du service fourni dans des conditions d'efficacité. Deuxièmement, l'assiette appropriée de la subvention doit dépendre de la raison d'être précise du service non commercial et des objectifs de subvention croisée.

Par exemple, dans le cas où se produit un effet de réseau, les usagers qui profitent du raccordement des usagers qui autrement ne seraient pas desservis, doivent payer en compensation. En revanche, il ne serait sans doute pas juste de taxer un usager de la ligne de TGV Paris-Marseille, dans le but de subventionner une liaison ferroviaire locale dans le nord-est de la France ; il vaudrait mieux financer le service sur les recettes fiscales du nord-est de la France.

5.1 Coûts

Au moment de décider de mettre en place ou non un service non commercial et du montant de la subvention à apporter au fournisseur du service non commercial, il est indispensable d'estimer combien coûte le service universel. Il existe de nombreuses publications sur l'estimation du coût d'un service de téléphonie locale, des obligations de services postaux, et de fourniture de services de transport. En outre, des rapports récents de l'OCDE sur la tarification des télécommunications (OCDE, 2002b) et sur la réforme des services postaux (OCDE, 1999a) ont examiné en détail les techniques d'estimation des coûts, c'est pourquoi la présente note de synthèse n'abordera pas longuement ce point. On remarquera que si l'on fait appel à une méthode d'enchères pour attribuer les obligations de service universel, on peut résoudre simultanément le problème de l'estimation du coût et du choix du fournisseur qui incombe à l'instance de réglementation⁴⁶.

Les coûts qu'il y a lieu d'évaluer diffèrent selon le problème à résoudre. D'une part, si la question est de savoir s'il y a lieu de classer un service dans la catégorie des services non commerciaux, il peut être judicieux de rechercher un coût de bien-être économique en calculant le manque à gagner d'un tarif uniforme par rapport aux avantages de redistribution que présente une vaste prestation du service⁴⁷. D'autre part, si la question est de savoir comment dédommager un prestataire d'un service non commercial, il est alors plus approprié de mesurer le coût privé pour le fournisseur⁴⁸.

⁴⁶ Il faut veiller à ce que les entreprises sous-traitantes disposent des ressources financières nécessaires de sorte que des soumissions à bas prix ne les mettent pas en difficulté financière. S'il n'existe pas un grand nombre d'autres entreprises susceptibles de reprendre rapidement les travaux en cours en cas de défaillance des sous-traitants, les pouvoirs publics doivent s'assurer de la viabilité financière des soumissionnaires.

⁴⁷ Cremer et al (1997) proposent une méthode pour mesurer l'impact global sur la qualité de vie d'une obligation de service universel.

⁴⁸ Plusieurs travaux estiment les coûts des obligations de service non commercial dans le secteur postal. Pour des exposés théoriques sur l'estimation des coûts dans les services postaux, se reporter à Crew et Kleindorfer (2000a), Panzar (2000) et Soares, Confraria et Pimenta (2002). Pour les estimations de coûts, Cf. Barthélémy et Toledana (2000), Bradley et Colvin (2001), Cohen et al. (2000), Cohen et al. (2002) et

Trois grands principes doivent présider à l'opération d'estimation des coûts :

- Éviter de payer au fournisseur de services non commerciaux des sommes qui reviennent à subventionner la construction d'une infrastructure qui, de toute façon, aurait été construite pour desservir des usagers rentables. Ces subventions permettent alors au fournisseur d'avoir une structure de coût moindre par rapport à d'éventuels concurrents ;
- Estimer les coûts (et apporter une aide financière aux constructeurs de l'infrastructure) de manière à inciter à construire une infrastructure destinée à desservir des usagers non rentables ;
- Fonder les coûts sur ceux d'un réseau efficace et non sur ceux du réseau en place (qui est peut-être très inefficace).

Finalement, les pouvoirs publics peuvent décider que le coût de fourniture d'un service non commercial est si faible que l'opérateur historique peut continuer de l'assumer sans risque. Dans le secteur libéralisé des services postaux, la Suède, qui n'oppose aucune restriction à la concurrence à cet égard, considère que les coûts imposés du fait de l'obligation de service universel ne constituent pas une menace pour la rentabilité de l'opérateur historique et que ce dernier peut les assumer sans qu'il soit nécessaire de mettre en place un mécanisme explicite (OCDE, 1999a, p. 9).

Un État peut aussi décider que les coûts des obligations de service non commercial sont si lourds qu'il faut apporter des subventions. Lorsque cette décision est prise, il faut trouver une source de financement et imaginer un mécanisme pour déterminer qui sont les bénéficiaires des fonds.

5.2 Source de financement

Si les pouvoirs publics souhaitent dédommager le fournisseur de services non commerciaux, ils doivent trouver un mécanisme pour réunir les fonds destinés à ce dédommagement. Comme dans tous les programmes de redistribution, le financement peut provenir de l'impôt ou de la tarification⁴⁹. Il existe quatre grands moyens de réunir des fonds :

- Subventions croisées implicites
- Impôts sectoriels
- Impôts sur les services de substitution
- Budget général

Robinson et Rodriguez (2000). Dans le secteur des télécommunications, Cave, Milne et Scanlan (1994 :27-43) et Jamison (1997) tracent les grandes lignes de méthodes applicables. Crandall et Waverman (2000:105-128) fournissent des estimations réelles fondées sur les modèles de coûts d'ingénierie. Panzar (2000) insiste sur le fait que les coûts doivent être calculés sur la base de la structure du marché après l'ouverture à la concurrence, car celle-ci change les caractéristiques de coût de la structure de marché antérieure. De toute évidence, la structure du marché après l'ouverture à la concurrence dépend des réglementations mises en place à ce moment là.

⁴⁹

Dans cette partie, on suppose que des taxes forfaitaires individuelles, calculées en fonction des possibilités de chacun, ne sont pas envisageables et que les pouvoirs publics ne disposent pas d'informations suffisantes pour gérer un système de transferts directs. Cremer et Gahvadi (2002) montrent que, dans certaines conditions, le prix et l'impôt sur le revenu peuvent donner des résultats efficaces au sens de Pareto (personne ne peut être gagnant sans que quelqu'un d'autre n'encoure une perte correspondante).

Depuis longtemps les subventions croisées implicites constituent le tout premier mécanisme de financement des obligations de service non commercial. Les subventions croisées sont inhérentes au principe de la tarification uniforme pour de nombreuses obligations de service non commercial⁵⁰. Un prix supérieur au coût dans des zones urbaines génère souvent des profits qui viennent subventionner la prestation de services dans les zones rurales. Si, dans chaque région, les prix étaient fonction des coûts, ce mécanisme de subvention croisée ne serait pas utilisable car les prix pratiqués en zone urbaine ne généreraient pas de profits susceptibles d'être alloués au financement des obligations de service non commercial. Dans la mesure où l'ouverture à la concurrence contraint les prix à se rapprocher des coûts, un programme de subventions croisées implicites ne serait pas viable dans un contexte concurrentiel. Aussi, lorsque la concurrence s'intensifie, il faut trouver des solutions autres que les subventions croisées implicites. Ces solutions risquent d'alourdir les coûts administratifs, tant pour les pouvoirs publics que pour les entreprises, du fait de la création et de la gestion d'un fonds de financement du service universel.

Les quatre principales solutions susceptibles de remplacer les subventions croisées internes sont les impôts sectoriels, les impôts sur les produits de substitution, la fiscalité générale et les réductions d'impôts⁵¹. Dans l'UE, la liberté d'accorder ce soutien public peut être limitée par les règles relatives aux aides d'Etat.⁵² Toute décision relative au choix de la solution qui convient le mieux à la constitution du financement nécessaire doit tenir compte d'un certain nombre de facteurs, notamment :

- La couverture du service
- L'existence d'effets de réseau
- La perte sèche due à un impôt sectoriel par opposition à la fiscalité générale
- L'aptitude de l'instance de réglementation à gérer le mécanisme fiscal

Couverture du service. Si un très faible pourcentage de la population profite d'un service, comme c'est le cas du téléphone dans les pays en développement, la solution de la fiscalité générale risque d'être très limitée. En effet, dans ce cas, la faible fraction de la population concernée par le service appartient généralement aux couches aisées. Dans ce cas, la redistribution à partir du budget général risquerait de se faire sous forme d'un transfert des plus pauvres au profit des plus riches.

Externalités. Lorsqu'il y a de forts effets de réseau dans les deux sens, comme dans le cas du téléphone et du service postal, un impôt visant les usagers au sein du secteur peut être la meilleure solution

⁵⁰ Cela vaut lorsqu'il y a des différences de coût d'une région à l'autre, mais pas d'un prix à l'autre, et lorsque la tarification uniforme est supérieure au coût marginal à long terme dans les zones à bas coût et inférieure au coût marginal à long terme dans les zones à coût élevé.

⁵¹ Une cinquième solution est le don charitable. Beaucoup de services publics américains encouragent les donations de leurs usagers pour financer l'utilisation du chauffage et de l'électricité par les foyers à bas revenu. A cet effet, on pourrait demander aux usagers d'« arrondir » leur facture à une valeur supérieure, au lieu de payer le montant précis facturé.

⁵² Dans sa récente décision sur l'affaire Altmark, (Cour de justice européenne (2003)), la Cour de justice européenne a statué que, lorsque l'aide est accordée pour financer des obligations de service public, quatre conditions doivent être remplies : le bénéficiaire doit avoir de véritables obligations de service public clairement définies, les paramètres doivent être établis à l'avance de façon objective et transparente, la compensation ne peut pas dépasser le montant nécessaire pour couvrir la totalité ou une partie des coûts engagés pour remplir l'obligation et, quand l'entreprise n'est pas désignée à la suite d'une procédure de marché public, le niveau de la compensation ne doit pas dépasser le montant qui serait nécessaire pour une entreprise bien gérée.

parce que ces usagers sont ceux qui profitent le plus de l'adhésion d'autres personnes au réseau (alors que les personnes extérieures au réseau ne perçoivent aucun avantage). En revanche, lorsqu'il n'y a pas d'effets de réseau, mais que les retombées sociales sont vastes, il peut être préférable de recourir au budget général, puisque les gains intéressent l'ensemble de la société.

Perte sèche de pouvoir d'achat. Les impôts qui ne sont pas des prélèvements forfaitaires entraînent nécessairement une perte de bien-être pour le consommateur. L'ampleur de la perte dépend du type d'impôt, c'est pourquoi, selon l'objectif visé, certains impôts sont préférables à d'autres⁵³. Pour la fiscalité générale, les variables clés entrant dans le calcul de la perte de bien-être sont les effets des impôts sur l'emploi et l'épargne. Pour les impôts sectoriels, en particulier les taxes proportionnelles, les variables entrant dans le calcul de la perte de bien-être sont la sensibilité des consommateurs au prix des produits qu'ils n'achètent plus, à la marge, du fait des impôts⁵⁴. L'Annexe 3 donne plus de détails sur le calcul des pertes sèches. Il en ressort que la décision de taxer tel produit plutôt que tel autre a des répercussions importantes sur les pertes de bien-être. Parfois, les impôts sectoriels génèrent des pertes sèches plus grandes que les impôts sur le revenu, et parfois c'est l'inverse.

Instance de réglementation. Les instances de réglementation d'un secteur d'activité n'ont pas nécessairement la possibilité de fournir des subventions à partir du budget général. En conséquence, elles risquent d'être tentées d'imposer une taxe à la consommation relevant de leur secteur, sur lequel elles exercent un contrôle, alors que le budget général pourrait être une source de fonds plus appropriée. Néanmoins, les ponctions sur le budget général ou les avantages fiscaux ciblés sont souvent les modes de financement des services non commerciaux qui entraînent le moins de distorsions.

5.2.1 *Usagers des services d'un même secteur*

Les taxes d'utilisation constituent une source courante de recettes budgétaires extérieures. Ces impôts peuvent être fixes et indépendants de la quantité consommée, ou variables et dépendants de la quantité consommée. Des taxes fixes sont plutôt préférables parce qu'elles n'altèrent pas l'incitation marginale à consommer un produit, comme un service téléphonique. Cela signifie, par exemple, qu'il vaudrait mieux financer une obligation de service non commercial dans le secteur du téléphone par le biais d'une redevance mensuelle payée par les usagers plutôt que par une augmentation du prix de la minute de communication⁵⁵.

Dans certains cas, une taxe forfaitaire fixe est calculée par l'instance de réglementation et imposée à une entreprise ; c'est le cas de la redevance pour service non commercial, calculée aux États-Unis sur une base forfaitaire, et appliquée aux sociétés de téléphone fournissant des services longue distance. Ces sociétés peuvent répercuter cette taxe sur les usagers de façon transparente, de sorte qu'ils sont conscients de contribuer à un fonds de financement des services non commerciaux. Cependant, certaines de ces sociétés préfèrent répercuter cette redevance sur les usagers au prorata de leur consommation. Ce type de redevance alourdit le coût marginal pour les usagers qui utilisent effectivement le téléphone, ce qui fait monter le prix au-dessus du coût et se solde par une diminution du nombre des appels téléphoniques. En conséquence, lorsqu'une redevance forfaitaire est imposée à une entreprise dans

⁵³ Pour une discussion sur l'imposition optimale, cf. Atkinson et Stiglitz (1976) et Auerbach (1985). Pour Ramsey, la fixation des prix et des impôts se fonde sur l'idée que la taxation des biens ou des clients présentant la plus faible élasticité génère la perte de qualité de vie la plus faible.

⁵⁴ Une taxe proportionnelle est une taxe correspondant à un pourcentage fixe de la valeur d'un produit, comme dans le cas de la TVA.

⁵⁵ Cf. Hausman (1996) qui donne une description des pertes relatives de qualité de vie résultant de chaque forme d'impôt ou de taxe.

le but de limiter l'impact sur les décisions concernant la consommation marginale, il peut être intéressant d'envisager d'édicter une réglementation qui limite sa répercussion à une redevance mensuelle.

5.2.2 *Impôts sur les services de substitution*

Les impôts prélevés sur les services de substitution qui génèrent des retombées négatives peuvent constituer une source de financement pour les services non commerciaux. Par exemple, un État peut déterminer que les véhicules à essence génèrent de graves effets négatifs sous forme de pollution ou d'embouteillages sur les routes. En conséquence, le prix de l'essence est peut-être trop bas pour tenir compte de tous ces effets sociaux négatifs. Parallèlement, les services qui sont des substituts imparfaits, tels que les transports en commun, peuvent fonctionner à perte. Une source de financement possible des transports publics peut être constituée par des taxes sur un mode de transport de substitution qui a des retombées négatives. Les taxes sur l'essence répondent à cet objectif.

5.2.3 *Impôts sur le revenu*

Les obligations de service non commercial peuvent être financées par le budget général plutôt que par un impôt sectoriel. Cette fiscalité peut se faire à l'échelon national ou local. Un des avantages de l'impôt sur le revenu est sa progressivité, souhaitable si l'on recherche une redistribution, tandis que les taxes sur les produits peuvent parfois être plus difficiles à imposer d'une façon progressive. L'un des inconvénients de l'impôt sur le revenu est son effet sur l'emploi.

Lorsqu'un service non commercial est assuré pour répondre à un souci d'ordre social, comme dans le cas des appels gratuits à destination des services d'urgence, il peut être souhaitable de subventionner sur le budget général les fournisseurs de ce service. Lorsqu'il s'agit de répondre à une préoccupation plus étroite, en particulier lorsque les avantages profitent à un groupe qui bénéficie déjà de revenus élevés, une subvention financée par le budget général peut être moins appropriée. Au moment de décider de la source de financement, entre l'impôt sur le revenu et des taxes d'utilisation, il est utile d'analyser les pertes sèches entraînées dans un cas et dans l'autre, comme le montre l'Annexe 3. Dans la mesure où les instances de réglementation exercent un contrôle sur les fonds réunis au sein d'un secteur d'activité, et où le contrôle du budget général leur échappe, elles risquent de préférer les redevances d'utilisation. Dans ce cas, il faut être très vigilant dans le choix des produits à taxer.

Il peut être souhaitable de collecter une taxe sur une zone géographique limitée ou d'effectuer des prélèvements sur le budget général au profit d'une zone géographique limitée pour financer certaines obligations de service non commercial. Si des recettes fiscales nationales sont directement utilisées pour payer des produits locaux, alors il est clair que la demande des responsables locaux et de la population locale portera sur une quantité excessive du produit en question. Lorsque des autorités locales demandent instamment la poursuite d'un service local, elles peuvent alors payer elles-mêmes le service. Le secteur des transports ferroviaires en Allemagne en donne un exemple. En Allemagne, comme partout ailleurs, c'est dans les zones rurales que les transports ferroviaires de voyageurs sont principalement assurés à perte. Un exploitant commercial fermerait près des deux tiers du réseau allemand, pour manque de rentabilité. Or, d'un point de vue politique, c'est bien sûr inacceptable. C'est pourquoi, lors de la privatisation et de la restructuration des chemins de fer en Allemagne, la Compagnie fédérale de chemins de fer a été segmentée en quatre secteurs : l'un pour le fret, le deuxième pour les grandes lignes voyageurs, le troisième pour le trafic voyageurs local et régional, et le quatrième pour les voies ferrées. Le trafic régional voyageurs est particulièrement déficitaire et pose donc un problème particulier. La solution a été de confier aux autorités locales le soin de décider du niveau de service dans les zones rurales plutôt que de laisser la compagnie de chemins de fer décider elle-même. Il appartient aux autorités locales de décider si elles souhaitaient ou non un service voyageurs dans leur région. Si elles veulent la poursuite du service, elles négocient avec la compagnie fédérale de chemins de fer (ou toute autre société) pour qu'elle fournisse ces services, et ce sont

les autorités locales qui paient (OCDE, 1998). Cette approche internalise le solde coûts-avantages d'un service non commercial à l'échelon local.

Le fait de financer de façon non discriminatoire une obligation de service non commercial peut éviter d'introduire une distorsion et de favoriser une entreprise plutôt qu'une autre, mais dans certains cas, il faut désigner clairement l'entreprise chargée de fournir un service non commercial. Cela pose la question générale de savoir comment déterminer l'entreprise à qui incombe une obligation de service non commercial.

5.2.4 Réductions d'impôts

Il existe deux grandes catégories de réductions d'impôts : les exonérations de l'impôt normal sur les bénéfices ou sur le revenu et les exonérations des impôts normaux sur les ventes. On peut penser que les exonérations de l'impôt sur les bénéfices ne sont pas des instruments appropriés : d'une part, une entreprise assurant uniquement un service déficitaire ne réalise pas de bénéfices et ne peut donc pas faire jouer l'exonération ; d'autre part, si les bénéfices économiques sont positifs, le service est commercial et ne devrait donc pas être subventionné.⁵⁶

Lorsqu'une entreprise bénéficie d'une exonération de la taxe sur les ventes, l'exemption peut s'appliquer à toute une catégorie de produits, dont une partie seulement peuvent être considérés comme non commerciaux, ou elle peut s'appliquer uniquement à la composante non commerciale. Dans l'un et l'autre cas, la réduction d'impôt accroît le bénéfice tiré d'une vente par l'entreprise dès lors que le marché n'est pas parfaitement concurrentiel. Dans la mesure où l'allègement fiscal s'applique à la fois aux éléments commerciaux et aux éléments non commerciaux d'un service, la réduction d'impôt n'est pas neutre du point de vue de la concurrence.

5.3 Détermination du (des) bénéficiaire(s) du financement d'un service non commercial

C'est l'ancien monopole dominant le secteur qui est souvent explicitement désigné comme bénéficiaire des subventions aux services non commerciaux, comme le prévoient les lois sur les télécommunications dans un certain nombre de pays de l'OCDE. Dans la mesure où les coûts d'entrée et de sortie sont minimes, la limite imposée par la loi est artificielle et peut avoir pour effet la fourniture des services à un coût excessivement élevé. Par exemple, si les services postaux déclarent qu'une tournée de distribution donnée est non rentable, une solution possible consiste à autoriser plusieurs entreprises à entrer en concurrence pour l'obtention d'une subvention afin de fournir le service voulu sur la tournée de distribution par l'intermédiaire d'un mécanisme d'enchères. Comme l'a montré l'exemple des transporteurs aériens en Norvège, ce type d'enchères ne peut pas fonctionner correctement lorsqu'il n'y a qu'une seule offre potentielle. En revanche, s'il y a plusieurs concurrents, un mécanisme d'enchères peut donner de bonnes informations sur le niveau approprié de la subvention dans des conditions d'efficacité et sur le fournisseur le moins disant.

Les situations telles que le fournisseur d'un service non commercial doit investir dans une nouvelle infrastructure importante ne se prêtent pas à des appels d'offres répétés parce que, dans ce cas, les investissements effectués aujourd'hui risquent de ne pas être amortis dans l'avenir et le démarrage du service peut prendre beaucoup de temps.

En revanche, lorsque les actifs sont transportables à bas coût et peuvent entrer et sortir du marché, alors les mécanismes d'appel d'offres peuvent convenir. L'exemple du transport aérien en Norvège

⁵⁶ Voir Nicolaidis (2003) pour une analyse détaillée des aides d'Etat au titre des obligations de service public, notamment en ce qui concerne les réductions d'impôts.

indique que, là où les marchés des services sont ouverts à la concurrence, on peut obtenir de bons résultats quand plusieurs entreprises soumissionnent pour des subventions.

Si l'on recourt à un mécanisme d'adjudication, ce type d'opération ne doit pas être trop fréquent et il faut veiller en particulier à ce que les concurrents ne recourent à des pratiques collusoires pour se répartir les marchés⁵⁷.

Lorsqu'il n'est pas possible de recourir à un mécanisme d'appel d'offres, la subvention payée au fournisseur doit être calculée sur la base du coût estimé du service, à l'aide d'une méthode d'estimation des coûts qui ne récompense pas le surinvestissement, qui ne pénalise pas non plus l'investissement et qui ne finance pas des installations qui auraient été construites et utilisées sur des marchés concurrentiels, même en dehors de toute obligation de service non commercial.

5.4 Vue d'ensemble du financement

Si les avantages d'une activité concurrentielle dans un secteur sont supérieurs aux coûts de mise en place et de maintien d'un service concurrentiel, les principes qui régissent le financement d'un service non commercial doivent être les suivants :

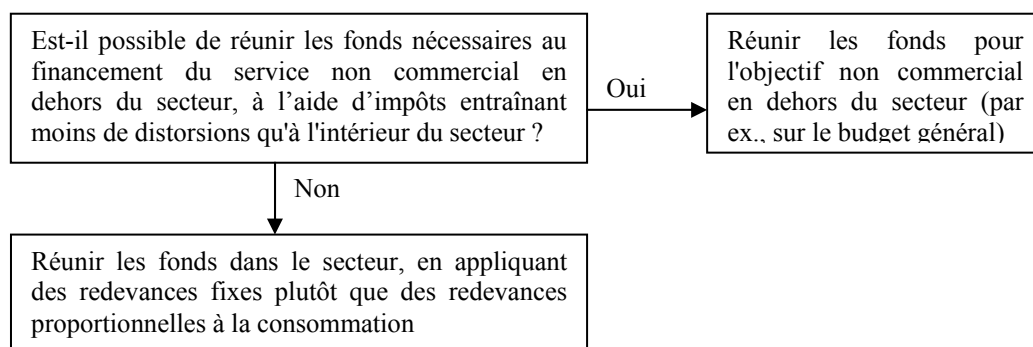
- **Transparence.** Les services doivent être financés par un mécanisme transparent qui permette à toutes les parties d'évaluer les coûts du service pour elles-mêmes ainsi que les avantages financiers pour le fournisseur du service non commercial.
- **Neutralité par rapport au marché.** Le mécanisme de financement ne doit pas être conçu pour profiter à l'une des parties, notamment l'opérateur historique, au détriment des autres. En conséquence :
 - Ne pas sélectionner un fournisseur par défaut, en vertu de la réglementation, à moins qu'aucun autre fournisseur ne soit en mesure de fournir le service ;
 - Calculer les coûts de la fourniture du service universel de sorte que le bénéficiaire des subventions ne perçoive pas en fait une subvention de l'État ou de ses concurrents qui serve à financer une infrastructure générale.
- **Bénéficiaires ciblés.** Le mécanisme de financement doit indiquer clairement qui sont les bénéficiaires du service, et être conçu pour aider ces derniers et non pas d'autres usagers. Par exemple, la fixation d'un prix uniforme pour tous les services téléphoniques de base peut être conçue pour aider les résidents ruraux mais peut aussi aider des résidents des banlieues aisées qui, tout comme les ruraux, constituent un groupe d'usagers du téléphone habitant des zones à faible densité de population. Si les résidents des banlieues ne sont pas la cible visée, ils ne doivent pas faire partie des bénéficiaires. En outre, s'il est possible de verser directement les subventions aux bénéficiaires plutôt que de créer une distorsion des prix, il vaut mieux opter pour cette solution. Les bons d'études sont un exemple de versement direct aux bénéficiaires destiné à assurer un large accès à l'éducation, qui est un service non commercial.
- **Paiement par un tiers.** Les paiements aux fournisseurs de services non commerciaux doivent être effectués par l'intermédiaire d'un tiers neutre. Les montants doivent être déterminés et collectés par un tiers neutre, puis distribués au fournisseur de services non commerciaux.

⁵⁷ Pour une discussion de la manière dont des enchères peuvent être utiles dans les obligations de service universel, Cf. Milgrom (1996), Weller (1998) et Kelly et Steinberg (1998).

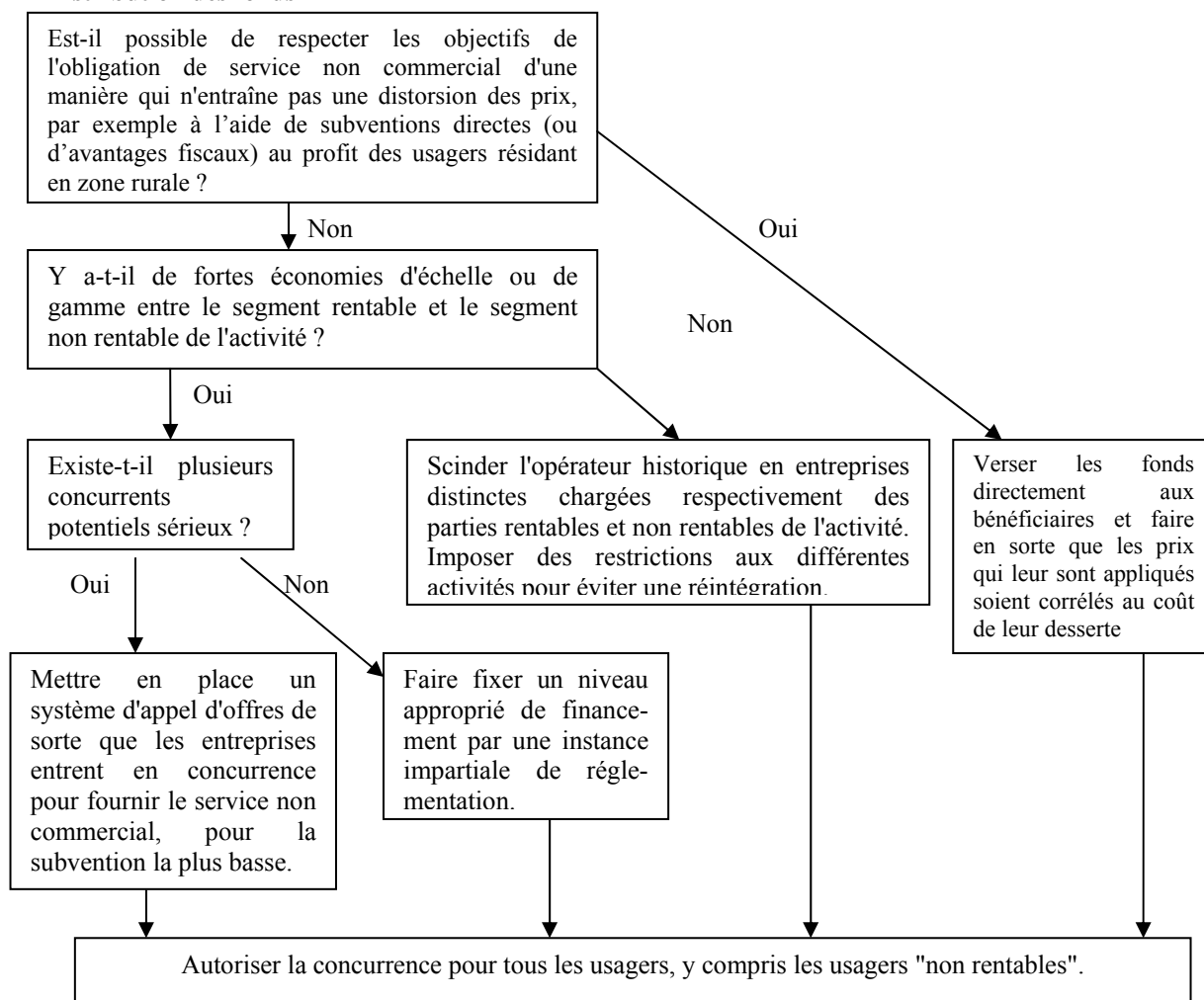
L'arbre de décision ci-dessous illustre le mode de financement des obligations de service non commercial. :

Guide du financement des obligations de service non commercial en cas de libéralisation

Collecte des fonds



Distribution des fonds



6. Conclusion

Les obligations de service non commercial concernent toute une série de branches d'activité dans les pays de l'OCDE. Elles sont surtout courantes dans les secteurs autrefois dominés par des entreprises publiques. Cependant, la politique à l'égard des services non commerciaux est encore extrêmement variable. La présente note aboutit aux conclusions suivantes :

- Un service non commercial est encore souvent possible dans un régime libéralisé. La rémunération de la fourniture de services non commerciaux peut se faire par le biais de subventions explicites.
- Les services non rentables sont peut-être moins nombreux qu'on ne le prétend. Dans certains cas, des fournisseurs de services non commerciaux qui avaient la possibilité de demander des subventions, ont choisi de ne pas le faire. L'externalisation de tâches assurées de façon inefficace peut fortement réduire l'inefficacité.
- Il faut souvent supprimer les obstacles à la concurrence dressés pour préserver le système de subventions croisées. Avec la suppression de ces barrières, la concurrence débouchera sur des procédés de production plus efficaces.
- Il faut réexaminer régulièrement les coûts et avantages des services non commerciaux existants et les estimer avant de lancer un nouveau service.
- Il ne faut pas que les règles qui régissent les services non commerciaux conduisent en général à sélectionner un fournisseur préféré par l'État (il peut y avoir parfois concurrence pour fournir le service non commercial), que ce soit explicitement ou implicitement.
- Il faut réévaluer la description des services actuels compte tenu de l'évolution technologique. Les services téléphoniques de base, par exemple, ne doivent pas être définis en termes de services filaires, mais plutôt de services assurant un accès au réseau téléphonique, cet accès pouvant être fourni par la téléphonie mobile ou par le satellite.
- Il est indispensable d'apporter des preuves péremptoires à l'appui de toute affirmation selon laquelle la concurrence n'a aucun rôle à jouer dans des secteurs où elle est possible.

ANNEXE 1. EFFETS DE RÉSEAU ET OBLIGATIONS DE SERVICE NON COMMERCIAL

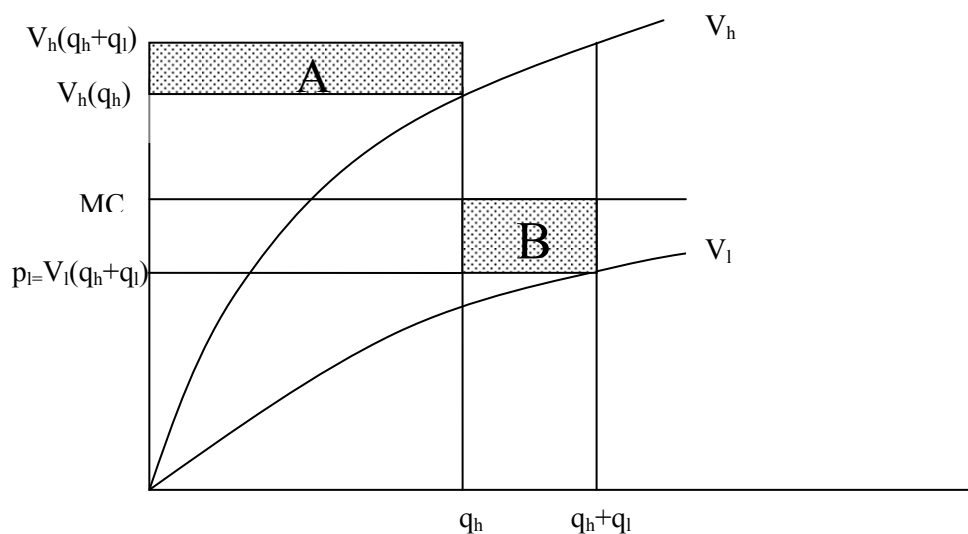
L'analyse des coûts et avantages liés aux obligations de service non commercial dans les secteurs de réseau peut être illustrée par les deux schémas ci-dessous.

Supposons qu'il existe deux catégories d'utilisateurs, l'une qui juge très intéressante l'utilisation du réseau (quantité q_h de grands usagers) et celle qui lui accorde une importance nettement moindre (quantité q_l de petits usagers qui sont d'ailleurs sans doute des usagers à bas revenu). Ce qui intéresse ces deux catégories d'utilisateurs, c'est uniquement le nombre de personnes raccordées à leur réseau, et non de savoir si un usager appartient à l'une ou à l'autre catégorie. Ainsi, les grands usagers ont une fonction de valeur du réseau V_h et les petits usagers ont une fonction de valeur de réseau de V_l . Cette fonction révèle la valeur des différentes tailles de réseau pour un usager. Nous prenons ici pour hypothèse les fonctions de réseau qui présentent un rendement marginal décroissant par rapport à la taille du réseau et cela pour toutes les tailles de réseau, bien que cette hypothèse ne soit pas nécessaire.

Pour simplifier l'analyse, admettons que le prix pour être membre du réseau soit égal à un coût marginal constant. Cette condition n'est probablement pas remplie en pratique, mais elle permet de bien illustrer le principe des effets de réseau. Dans le réseau initial, tous les membres "grands usagers" q_h appartiennent au réseau, mais les petits usagers n'ont pas tous rejoint le réseau parce que le prix qui leur est proposé (MC) ne leur apporte pas suffisamment d'avantages pour justifier leur appartenance au réseau. Cependant, alors que le coût marginal peut être supérieur à leur avantage individuel, il peut rester inférieur à l'avantage social, puisque l'avantage social est la somme de l'avantage pour l'individu d'appartenir au groupe et de l'avantage pour le groupe d'enregistrer le rattachement d'un individu supplémentaire.

Cependant, il apparaît clairement que les grands utilisateurs bénéficient en fait d'un avantage suffisant du fait du rattachement des petits usagers (A) pour contrebalancer la somme des pertes individuelles des petits usagers résultant de leur rattachement (B). Si les petits usagers se voient appliquer un prix inférieur à $c - V_l(q_h + q_l)$, alors le prix qui leur est proposé suffit à les inciter à se rattacher au réseau. De fait, les grands utilisateurs tireraient profit d'une subvention incitant les petits utilisateurs à se rattacher au réseau.

Graphique 1. Effets de réseau avec petits et grands consommateurs

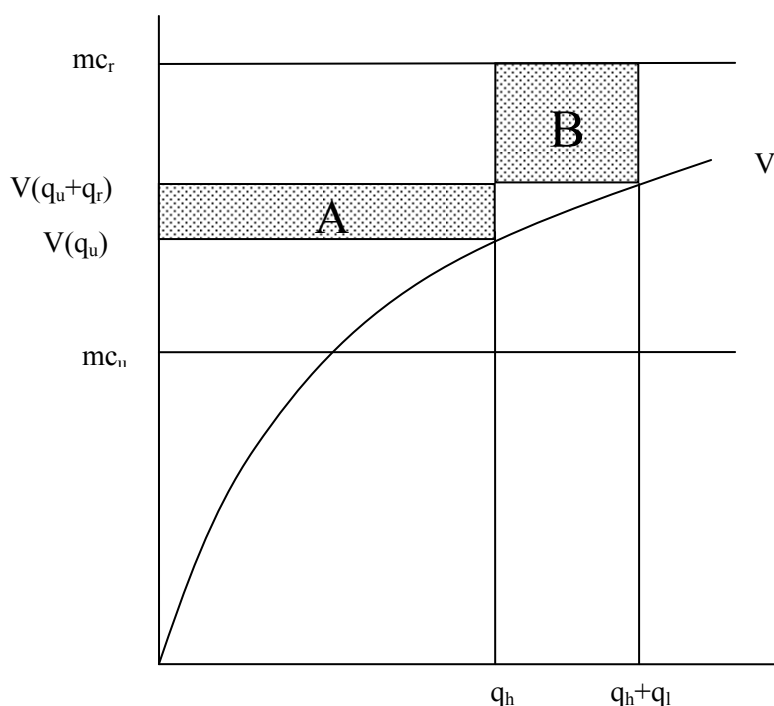


Outre des raisons de pure justice sociale, cet exemple peut en fait fournir une raison pour subventionner les abonnés à bas revenu. L'avantage social résultant de leur rattachement au réseau pourrait être supérieur au montant de la subvention. On pourrait très bien imaginer que les usagers à revenu élevé ont une fonction de valeur du réseau supérieure à celle des usagers à faible revenu, et on peut considérer qu'elles représentent V_h et V_l respectivement.

On pourrait reprendre le même exemple pour expliquer la différence entre les abonnés au téléphone en zone urbaine et en zone rurale. Supposons que les abonnés résidant en zone urbaine et en zone rurale aient la même fonction de valeur du réseau mais présentent des coûts marginaux différents, les abonnés ruraux ayant un coût marginal supérieur (MC_r) à ceux des usagers urbains (MC_u). L'avantage pour les usagers urbains du rattachement d'usagers ruraux est illustré par l'aire A, alors que l'avantage du rattachement des usagers ruraux est représenté par l'aire B.

On voit immédiatement que plus le coût des services fournis en zone rurale est élevé par rapport à la valeur d'un réseau exclusivement urbain, moins il est probable que la taille de A soit supérieure à la taille de B. La solution réglementaire, c'est-à-dire la subvention croisée interne, peut être reproduite dans le cadre de prix d'accès négociés parce que les réseaux urbains voudront subventionner les réseaux ruraux, dès lors que les usagers urbains estimeront qu'ils ont intérêt à inclure les usagers ruraux (Cf. Maher (1999)).

Graphique 2. Effets de réseau avec des consommateurs à coûts faibles et à coûts élevés



ANNEXE 2. MONOPOLE NATUREL ET ENTRÉE SUR LE MARCHÉ

A. Opérateur historique efficace

Cette annexe passe en revue les raisons qui peuvent justifier sur le plan économique les restrictions à l'entrée. Les restrictions de ce type qui existent à l'heure actuelle n'ont pas été nécessairement mises en place pour ces raisons économiques ; de même, des analyses économiques appropriées ont rarement été menées pour justifier ces restrictions. Cette annexe vise à préciser les conditions de base nécessaires pour apporter une justification économique aux restrictions à l'entrée. Certes, ces conditions existent théoriquement, mais certains commentateurs affirment que les restrictions mises en place ne les remplissent presque jamais en pratique⁵⁸. Il y a donc lieu de mener une analyse approfondie des conditions de coûts et de demande pour chaque service. Comme ces conditions peuvent différer d'un pays à l'autre, il peut y avoir lieu d'adopter des solutions différentes dans des pays différents. Nous commençons par envisager un cas de base, dans lequel nous avons une entreprise qui propose un seul produit par opposition à une entreprise qui propose plusieurs produits⁵⁹.

Le monopole est la structure sectorielle la moins coûteuse lorsque les économies d'échelle augmentent sur toute la gamme de la production possible. Dans ce cas, il n'est pas nécessaire d'imposer des restrictions à l'entrée, puisque, en supposant qu'une majorité de clients ne soient pas en mesure de changer rapidement de fournisseur ou de coordonner leur changement de fournisseur, aucun nouvel arrivant ne peut avoir des coûts aussi bas que l'opérateur historique, et le détenteur du monopole peut toujours fixer ses prix de manière à dissuader tout nouvel arrivant⁶⁰. Le monopole est qualifié de "viable" parce que les fonctions de coûts et de demande du marché permettent au détenteur du monopole de fixer un prix tel que (1) le marché disparaît (au prix annoncé, le détenteur du monopole produit tout ce qui est demandé), (2) le détenteur du monopole atteint au moins le seuil de rentabilité (il peut réaliser des profits supérieurs au taux de rendement du marché), (3) l'entrée sur le marché n'est pas rentable (ou, plus précisément, l'entrée à une échelle inférieure à celle du détenteur du monopole est non rentable)⁶¹.

Le monopole peut aussi constituer la structure sectorielle la moins coûteuse même lorsque des économies d'échelle ne peuvent être réalisées sur toute la gamme de la production possible⁶². "Les fonctions de coût sont dites subadditives à un niveau de production si une entreprise peut produire ce niveau de production à un coût inférieur à celui que pourraient obtenir deux ou plusieurs entreprises"⁶³. Sur le graphique 3, la diminution constante des coûts unitaires jusqu'à un niveau de production q_1 indique que

⁵⁸ Cf. Posner (1999:71-83) et Armstrong et al. (1994:106).

⁵⁹ Cette partie reprend beaucoup de données du Bureau of Economics (1989).

⁶⁰ Il reste à savoir si le détenteur du monopole choisit de fixer ses prix de façon à dissuader tout nouvel éventuel entrant ou s'il adopte ces prix seulement dès l'arrivée d'un nouvel entrant. Si le détenteur du monopole ne fixe des prix dissuasifs que dès l'arrivée d'un nouvel entrant, mais si les entrants savent que ces prix vont être pratiqués, alors le détenteur d'un monopole peut être en mesure de maintenir des tarifs monopolistiques tout en évitant l'arrivée de nouveaux entrants. Cette question des prix prend toute son importance lorsqu'on évalue le bien-être social ou la qualité de vie des usagers résultant d'une structure donnée d'un secteur.

⁶¹ Un monopole est "viable" si aucun plan réalisable d'entrée sur le marché "n'est censé rapporter un profit positif en supposant que les prix pratiqués par les opérateurs historiques ne vont pas changer à la suite de l'arrivée du nouvel entrant" (Baumol et al. (1982:25).

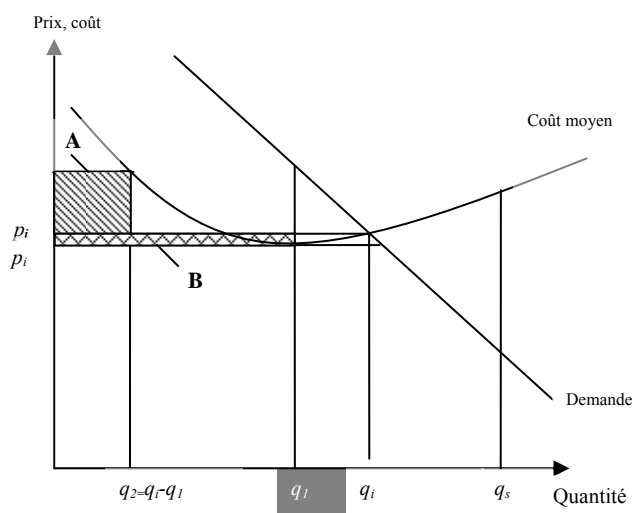
⁶² Cf. Baumol, Panzar et Willig (1982) et Sharkey (1982) qui donnent un résumé de ce travail.

⁶³ Bureau of Economics (1989:4).

pour chacun des niveaux de production entre 0 et q_1 , les coûts sont subadditifs. Cependant, même après que les coûts moyens aient commencé à augmenter, entre q_1 et q_s , les coûts continuent à être subadditifs, bien que les coûts unitaires augmentent⁶⁴. Cela s'explique parce que le fait d'ajouter un second producteur augmente nécessairement le total des coûts de production.

Ce graphique illustre un monopole naturel, parce qu'une entreprise peut produire le niveau demandé à un coût inférieur à celui qu'obtiendraient deux ou plusieurs entreprises. Cependant, ce monopole naturel n'est pas viable compte tenu du principe de contestabilité⁶⁵. A cet égard, prenons le cas d'un détenteur d'un monopole qui ne peut limiter sa production ; il fait payer un prix $p \geq p_i$ où p_i est l'intersection de la courbe de la demande et de la courbe du coût moyen. A un prix inférieur à p_i , il ne peut que répondre à la demande du marché à perte. Cependant, si l'opérateur historique fait payer un prix $p \geq p_i$, alors un nouvel arrivant peut proposer de vendre la quantité q_1 à un prix inférieur à p_i , mais supérieur à p_1 et réaliser un profit positif. On remarquera que le nouvel arrivant limite la quantité qu'il produit, mais l'opérateur historique doit fournir le service pour répondre au reste de la demande. Dans le cas illustré ici, si l'opérateur historique dessert les premiers demandeurs (les plus grands usagers) et si le concurrent dessert les petits usagers (ceux qui consomment les quantités les plus marginales), le coût du service changera et l'on ne sera plus dans le cas initial de production se situant à l'intersection de la courbe de la demande et de la courbe du coût moyen, la différence étant A-B. Dans ce cas, A-B est supérieur à 0, de sorte que les coûts de production augmentent évidemment⁶⁶.

Graphique 3. Monopole naturel non viable



⁶⁴ Cf. Baumol et al. (1982:30).

⁶⁵ Ces hypothèses sont notamment (1) l'absence de coûts d'investissement, de sorte qu'une entrée "éclair" sur le marché est faisable (2) les prix pratiqués par l'opérateur historique sont fixés (ou, plus techniquement, la réponse de l'opérateur historique quant à ses prix est plus lente que la réponse du nouvel entrant en matière de quantité produite). La première condition peut se rencontrer naturellement, mais la seconde peut parfois se trouver à la suite d'une réglementation qui encadre les prix pratiqués par l'opérateur historique mais pas ceux du nouvel entrant. Il est loin d'être certain que ces deux conditions se trouvent réunies dans un des secteurs existants. Cependant, l'intérêt de cet exercice est de présenter un cas de base à partir duquel on peut étudier des variantes.

⁶⁶ En fait, pour toute quantité se situant à la gauche de q_s le coût de production avec une seconde entreprise sera plus élevé qu'avec une première entreprise par subadditivité.

On remarquera que dans le cas où la courbe de la demande coupe la courbe du coût moyen dans la région de la baisse des coûts moyens, le monopole naturel est viable, parce qu'il est possible de fixer un prix à un niveau tel qu'aucun nouvel arrivant ne puisse prendre pied sur le marché rentable en pratiquant un prix inférieur.

Dans le cas d'un monopole naturel non viable, les restrictions à l'entrée se justifient pour des raisons d'efficacité. En effet, dans le cas d'un monopole naturel viable, les restrictions à l'entrée ne devraient pas être nécessaires puisque l'opérateur historique peut empêcher toute entrée d'un nouvel arrivant en fixant ses prix à un niveau bas. De même, dans le cas d'une entreprise qui n'est nullement un monopole naturel, aucune restriction à l'entrée ne devrait être nécessaire.

Jusqu'à présent, nous avons vu le cas d'une entreprise qui ne produit qu'un seul produit. Lorsqu'une entreprise produit plusieurs produits, la subadditivité ne change pas par rapport au cas du produit unique. En d'autres termes, les coûts sont subadditifs si, pour toutes les quantités de production de la combinaison de produits, le coût de production par une seule entreprise est inférieur à ce qu'il serait pour la même production assurée par deux ou plusieurs entreprises⁶⁷. Il n'est pas certain que toutes les fonctions de coût portant sur plusieurs produits puissent être considérées comme étant soit subadditives, soit non subadditives. A cet égard, on voit que dans certains secteurs, il peut y avoir un chevauchement de la production de ces produits alors que d'autres produits ne sont pas partagés. A titre d'exemple de chevauchement, on peut citer l'Internet à haut débit qui peut être fourni soit par le câble, soit par le téléphone. Il est beaucoup plus complexe de déterminer si une entreprise est un monopole naturel dans un environnement multiproduits. En conséquence, il est aussi beaucoup plus complexe de déterminer si une entreprise multiproduits est viable. Néanmoins, la même généralisation vaut pour le cas d'un produit unique : il n'est pas justifié en termes d'efficacité de protéger une entreprise contre l'arrivée de concurrents, à moins que celle-ci ne soit un monopole naturel non viable.

Sur un marché multiproduits pratiquant des tarifs uniformes mais ayant des coûts différents, il est clair qu'on peut voir l'arrivée de concurrents en trop grand nombre si les prix sont supérieurs aux coûts et en nombre insuffisant si les prix sont inférieurs aux coûts. Supposons, par exemple, qu'un second opérateur de service postal envisage de prendre pied sur le marché. Supposons ensuite qu'il y ait deux circuits : urbain et rural. En outre, supposons que le coût de distribution soit composé du coût de la main-d'oeuvre ou du délai d'acheminement sur un circuit c_u en zone urbaine et c_r en zone rurale, avec un tarif uniforme correspondant au prix p_u qui se situe entre c_u et c_r . La marge de variation des coûts de distribution sur un circuit donné en fonction de la quantité de lettres à distribuer est extrêmement limitée. En supposant que la concurrence arrive sur le marché par le biais de la formation d'une entreprise séparée avec son équipe de facteurs, le total des coûts pour le secteur va doubler pour le circuit urbain et rester le même pour le circuit rural, augmentant de c_u de c_u+c_r à $2c_u+c_r$. Les prix peuvent alors baisser dans le circuit urbain, profitant aux usagers qui paieront des prix plus bas et augmentant aussi la quantité totale de lettres distribuées en zone urbaine. Cependant, l'opérateur historique se heurtera alors à une diminution de ses recettes, en supposant qu'il avait atteint le seuil de rentabilité avant l'arrivée du concurrent. En revanche, si les coûts d'acheminement sont variables et constants par lettre distribuée, alors l'arrivée d'un concurrent donnera, pour la même quantité de production qu'auparavant, un total des coûts pour le secteur de c_u+c_r .

Supposons que le nouvel arrivant assure toute son activité en zone urbaine, tandis que l'opérateur historique, tenu par son obligation de service universel, doit continuer à offrir un service en zone urbaine. Celui-ci devra augmenter ses prix en zone rurale, non seulement pour couvrir les coûts réels de distribution du courrier en zone rurale, mais aussi pour couvrir le coût de la distribution en zone urbaine. Curieusement, l'ouverture du marché à la concurrence peut transformer des circuits auparavant rentables en sources de pertes beaucoup plus lourdes pour l'opérateur historique que les circuits non rentables. Il est

⁶⁷ Cf. Baumol et al. (1982:17).

possible que la courbe du coût moyen pour l'opérateur historique se situe, pour chaque niveau de coût possible, au-dessus de la courbe de la demande en zone rurale, ce qui montre qu'après l'ouverture à la concurrence l'opérateur historique n'atteint plus le seuil de rentabilité. Si ce dernier a la possibilité d'abandonner les circuits desservis par son concurrent, il est encore possible que la courbe du coût moyen pour les circuits ruraux se situe au-dessus de la courbe de la demande. Cette possibilité ne découle pas de la nécessité de poursuivre la desserte des circuits en zone urbaine, mais plutôt du fait que la valeur du service pour l'utilisateur est toujours inférieure au coût de sa fourniture.

La description ci-dessus reste théorique, mais la question qui se pose aux décideurs politiques, elle, est d'ordre pratique : une entreprise donnée est-elle un monopole naturel non viable ? S'il est difficile de montrer que les conditions requises pour être un monopole naturel viable sont remplies, il est plus simple de montrer que ces conditions ne sont pas remplies. En particulier, il est possible de montrer que les conditions nécessaires à une subadditivité ne sont pas remplies⁶⁸.

B. Opérateur historique inefficace

Dans la discussion présentée ci-dessus, on suppose que l'opérateur historique fonctionne de manière efficace, produisant la quantité et la qualité données au coût le plus bas possible. Cependant, si la déréglementation a été poursuivie dans les secteurs des services publics, c'est principalement parce que bien souvent ces services n'ont pas été fournis d'une manière efficace par l'opérateur historique⁶⁹. Les restrictions à l'entrée contribuent souvent à créer de véritables rentes économiques que se partagent les fournisseurs primaires⁷⁰. Les raisons de cette inefficacité peuvent être multiples, notamment des asymétries dans l'information, des pressions exercées par des groupes d'intérêts particuliers, un retard technologique⁷¹. L'une des forces les plus puissantes susceptibles de limiter cette inefficacité est l'ouverture à la concurrence⁷². La menace d'ouverture à la concurrence peut contribuer à contraindre l'opérateur historique à rester efficace, en particulier si l'évolution des coûts est plus lente que le rythme d'entrée⁷³.

⁶⁸ Evans et Heckman (1984, 1986) ont appliqué empiriquement une méthode pour tester la subadditivité.

⁶⁹ Comme cela est dit ailleurs dans la présente note, Wachter et al. (2001) ainsi que Haldi et Merewits (1997) indiquent, par exemple, que les rémunérations des postiers peuvent dépasser de 36 à 47 % les salaires de la concurrence.

⁷⁰ Rose (1987) estime que la déréglementation des transports routiers a fait chuter de 50 % à 30 % le montant de la prime perçue par les routiers syndiqués par rapport aux routiers non syndiqués. L'auteur estime en outre que, du fait de l'ouverture à la concurrence, les deux tiers des rentes du secteur ont été accaparées par les routiers syndiqués. En revanche, Hendricks (1975, 1977) ne relève aucun sursalaire dans la plupart des services publics réglementés. On remarquera que les syndicats peuvent accroître leur part dans les rentes d'un secteur soit par le biais des salaires, soit par le biais du plein emploi, et que par ailleurs Hendricks n'étudie pas l'ensemble des coûts de main-d'œuvre.

⁷¹ Fama (1980) ainsi que Jensen et Meckling (1976) étudient en détail les problèmes qui peuvent se poser entre propriétaire et gestionnaire. Ces auteurs considèrent que même des entreprises relevant du secteur privé ne sont pas en mesure de minimiser leurs coûts (et de maximiser les profits pour leurs actionnaires). Leibenstein (1976) traite des problèmes d'efficacité non distributive qui résultent d'incitations imparfaites.

⁷² Une autre limite susceptible de résoudre le problème des inefficacités est la reprise pure et simple ; cf. Jensen (1988).

⁷³ L'absence de pression concurrentielle peut se solder par une augmentation des avantages pour les dirigeants (par exemple, des avions privés pour l'entreprise) ainsi que pour la main-d'œuvre (notamment, des salaires excessivement élevés compte tenu de la qualification des salariés et du degré de complexité du travail). En particulier, l'hypothèse de la théorie de la contestabilité selon laquelle les prix pratiqués par les opérateurs historiques ne sont pas flexibles a donné lieu à de vives critiques, mais il se pourrait bien vrai que les prix ne soient pas flexibles, parce que les coûts ne le sont pas non plus.

Supposons qu'un opérateur historique soit protégé de longue date contre la concurrence. Dans ce cas, ses coûts peuvent être considérablement supérieurs au niveau d'efficacité. Dans nombre de cas l'ouverture à la concurrence permet réellement d'abaisser le total des coûts du secteur, même si la fonction de coût de l'opérateur historique affiche des rendements d'échelle croissants. C'est parce qu'une fonction de coût inefficace peut décroître pour tous les niveaux de production. Le remplacement de producteurs à coût élevé par des producteurs à bas coût peut alors montrer que l'ouverture à la concurrence accroît le bien-être total et le bien-être pour le consommateur.

Pour calculer la valeur de cette substitution, il est essentiel de déterminer dans quelle mesure l'abandon de la part des usagers d'un producteur "inefficace" réduit effectivement les coûts de celui-ci, et dans quelle mesure la substitution alourdit les coûts du producteur efficace. A cet effet, ce qui importe n'est pas tant d'examiner les coûts moyens de production mais les coûts fixes et les coûts variables auxquels doit continuer à faire face l'opérateur historique par rapport aux coûts fixes irrécupérables et aux coûts variables de l'entrant potentiel. Si les coûts moyens qui incombent à l'opérateur historique sont très majoritairement composés des coûts fixes qui continuent à courir, à long terme, même après l'ouverture à la concurrence (ce qu'on pourrait appeler des coûts fixes insensibles à l'entrée), alors l'ouverture à la concurrence ne réduira pas sensiblement l'ensemble des coûts dans le secteur, sauf en cas de faillite de l'opérateur historique. En revanche, si les coûts moyens de l'opérateur historique sont plus fortement composés de coûts variables, ceux-ci vont nécessairement varier après l'ouverture à la concurrence, ce qui aura probablement pour effet de réduire immédiatement le total des coûts pour le secteur dès l'arrivée de concurrents.

Pour savoir si l'ouverture à la concurrence va avoir pour effet de réduire le bien-être social global, dans l'idéal il faudrait calculer à la fois l'impact de l'ouverture de la concurrence sur les coûts pour la production existante et l'impact sur le bien-être social de toute variation de la production. Plus globalement, il faudrait aussi s'intéresser à l'impact de l'arrivée potentielle ou réelle de concurrents sur les incitations à l'effort et l'effet dynamique sur les incitations à innover et, pour l'opérateur historique, à réaliser et maintenir une exploitation efficace⁷⁴.

Pour effectuer le premier calcul, comme indiqué ci-dessus, il faut comparer le total des coûts en l'absence d'ouverture à la concurrence au total des coûts en présence de concurrents. L'ouverture à la concurrence est d'autant plus souhaitable que le total des coûts du secteur diminue après cette ouverture⁷⁵. On peut formaliser cette intuition. Supposons qu'un producteur en place ait des coûts totaux, pour la production q , de $TC_i(q)$, composés d'un coût fixe F_i et d'un coût marginal constant c^i . Supposons qu'un nouvel arrivant sur le marché soit plus efficace que l'opérateur historique. Considérons que les coûts fixes du nouvel arrivant soient $\varepsilon_f F^i$ et son coût marginal constant $\varepsilon_m c^i$. Enfin, supposons que n pour cent de la quantité q passe au nouvel arrivant. Alors, le total $TC_{i,e}(q)$ est donné par :

$$TC_{i,e}(q) = (1 + \varepsilon_f)F^i + (1-n)qc^i + \varepsilon_m c^i nq.$$

L'ouverture à la concurrence réduit le total des coûts pour la quantité q si, et seulement si, $TC_{i,e}(q) < TC_i(q)$, ou lorsque

⁷⁴ Par exemple, si un opérateur historique ne peut ajuster rapidement des salaires élevés au point d'être inefficaces en réaction à l'entrée sur le marché d'un nouvel arrivant, alors il peut être davantage incité à maintenir des salaires à un niveau proche du niveau efficace de façon à éviter une perte potentielle de quantités ou de profits après l'ouverture à la concurrence.

⁷⁵ L'ouverture à la concurrence peut aussi avoir des effets sur les prix qui se traduisent par des gains de pouvoir d'achat, en particulier pour les usagers. Dans la mesure où le pouvoir d'achat des usagers est affecté d'une pondération plus forte que les profits des entreprises dans la fonction du bien-être social, alors ces effets de prix prennent une importance croissante. Pour une discussion du rôle du bien-être social et de l'ouverture à la concurrence, cf. Mankiw et Whinston (1986) et Armstrong et al. (1994:106-109).

$$\varepsilon_i F^i < (1 - \varepsilon_m) n q c^i.$$

Au fond, ce que ce calcul indique, c'est que l'augmentation des coûts fixes liée à l'ouverture à la concurrence doit être plus que compensée par les gains résultant d'une diminution des coûts variables de production. Plus les coûts variables de l'opérateur historique sont inefficaces, et plus les usagers sont nombreux à passer à la concurrence, plus grande sera l'amélioration des coûts variables. En revanche, plus l'inefficacité de l'opérateur historique est grande en termes de coûts fixes, plus il sera difficile de compenser le déséquilibre par des gains sur les coûts variables à la suite de l'ouverture à la concurrence.

Les pourcentages relatifs des coûts fixes et des coûts variables (dans le total des coûts) peuvent varier sensiblement d'un secteur à l'autre. Dans les cas où l'ouverture à la concurrence, peut-être avec une obligation de service universel, ne permet pas de réduire le total des coûts pour le secteur mais contribuerait sensiblement à une hausse de ces coûts (sans améliorer sensiblement le bien-être des usagers), il faudrait trouver d'autres moyens d'accroître l'efficacité de l'opérateur historique, par exemple en externalisant les fonctions à coûts de main-d'oeuvre élevés⁷⁶.

⁷⁶

Une autre préoccupation liée aux coûts d'un opérateur historique peut résider dans les engagements de retraite non financés. Il n'est pas nécessaire de maintenir des restrictions à l'entrée dans le but de protéger ces engagements, à condition qu'il y ait un mécanisme, éventuellement financé par l'État, qui assure les paiements pour faire face à ces obligations. En particulier, si l'un des effets du maintien des restrictions à l'entrée est de soutenir une exploitation inefficace de la part de l'opérateur historique, il pourrait être très intéressant que l'État prenne en charge les engagements de retraite et parallèlement réalise l'ouverture à la concurrence.

ANNEXE 3. PERTES SÈCHES RÉSULTANT DE LA FISCALITÉ

Dans la présente annexe, nous exposons une technique simple pour estimer approximativement la perte sèche de pouvoir d'achat résultant de la taxation d'un bien en fonction de sa consommation. Nous présentons ensuite des estimations de la perte sèche résultant du financement d'une subvention par les recettes de l'impôt sur le revenu. Il est important de calculer des estimations des pertes de bien-être, en particulier pour les décisions d'ordre politique qui se fondent sur une comparaison de différentes sources possibles de financement pour un niveau donné de subventions. Le principal point qui se dégage est que la perte sèche est beaucoup plus grande pour un produit qui fait l'objet d'une demande élastique que pour un produit dont la demande n'est pas élastique. C'est là une remarque importante, car beaucoup de pays appliquent aux télécommunications des taxes proportionnelles à la consommation au lieu d'une taxe fixe par ligne. Dans le secteur des télécommunications, la demande a tendance à être fortement élastique tandis que la demande d'abonnement, elle, est faiblement élastique. Dans ces conditions, les pertes résultant de la fiscalité sont très lourdes. Si au contraire on taxait les abonnements, les pertes pourraient être très sensiblement réduites. Si le financement des subventions se faisait par prélèvement sur le budget général, les pertes seraient aussi probablement réduites¹.

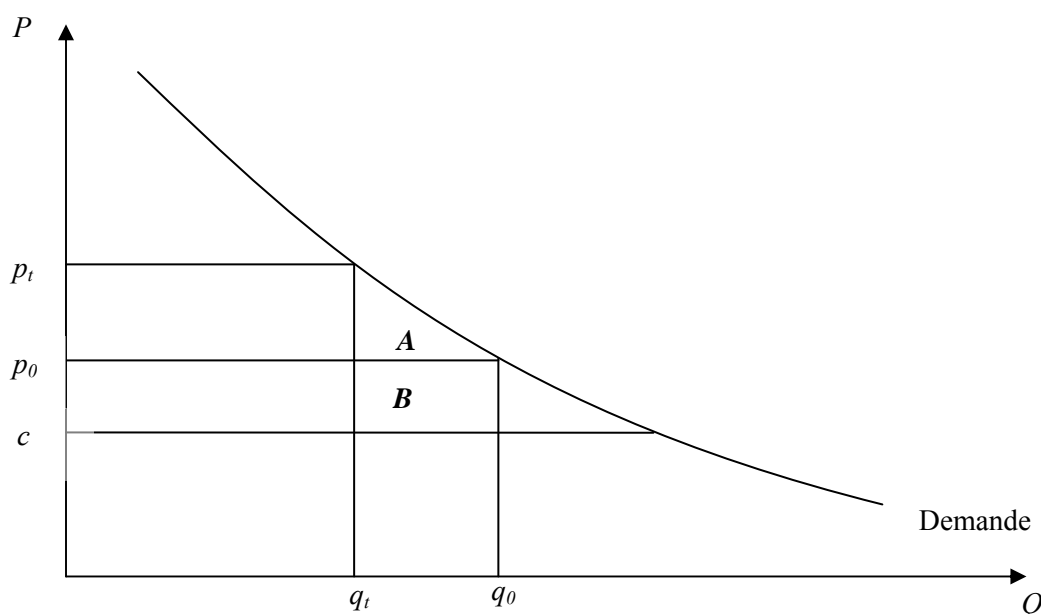
Les facteurs clés à prendre en compte pour évaluer l'impact des taxes ad valorem sont les suivants :

- le prix courant (p_0)
- la valeur de la taxe (t , ce qui donne un prix p_t)
- l'élasticité de la demande du produit à taxer (η)
- le coût marginal de production du produit (c)

La perte sèche résultant d'une taxe qui fait passer le prix de p_0 à p_t (et réduit la quantité de q_0 à q_t) est la somme de la perte **A** pour l'utilisateur et de la perte **B** pour le producteur.

¹ Si les taxes proportionnelles présentent l'avantage d'imposer plus lourdement les plus gros utilisateurs, cela ne signifie pas nécessairement que les usagers à bas revenu paieront un impôt plus réduit, dans la mesure où ces usagers peuvent être de gros utilisateurs.

Graphique 4. Perte sèche avec impôt ad valorem



On peut estimer $A+B$ à l'aide de l'équation ci-dessous :

$$\begin{aligned}
 A+B &\approx -\Delta q_0 (p_0 - c) - 0.5 \Delta p_0 \Delta q_0 \\
 &\approx \eta_0 \frac{\Delta p_0}{p_0} (p_0 q_0 - c q_0) + 0.5 \eta_0 \left(\frac{\Delta p_0}{p_0} \right)^2 p_0 q_0 \\
 &\approx \eta_0 \frac{p_t - p_0}{p_0} (p_0 q_0 - c q_0) + 0.5 \eta_0 \left(\frac{p_t - p_0}{p_0} \right)^2 p_0 q_0
 \end{aligned}$$

On appliquera cette formule pour estimer les pertes sèches résultant de la taxation d'un produit². Nous cherchons à connaître la perte par unité de taxe collectée. On peut donc diviser l'ensemble par TR, montant des recettes fiscales. Cela donne :

$$\frac{A+B}{TR} \approx \eta_0 \left(\frac{(p_t - p_0) q_0}{TR} \right) \left(\frac{p_0 - c}{p_0} \right) + 0.5 \eta_0 \left(\frac{(p_t - p_0) q_0}{TR} \right) \left(\frac{p_t - p_0}{p_0} \right)$$

ou, en simplifiant :

$$\frac{A+B}{TR} \approx \eta_0 \left(\frac{p_0 - c}{p_0} \right) + 0.5 \eta_0 \left(\frac{p_t - p_0}{p_0} \right)$$

Voici maintenant un exemple qui montre comment cette formule peut être utilisée. Les chiffres ci-dessous sont fondés sur le marché américain du téléphone et s'inspirent de Hausman (1996). La première colonne de chiffres indique les estimations des variables concernant les appels longue distance avec prix et

² On remarquera qu'il existe une formule plus rigoureuse pour calculer une courbe linéaire logarithmique de la demande. Cf. Hausman (1981) qui présente le calcul correspondant.

taxes à la minute. La seconde colonne de chiffres indique les estimations des variables concernant les abonnements, parfois dénommés redevances mensuelles de base.

Tableau 4. Estimation des variables pour le calcul des pertes dues à la fiscalité

Variable	Longue distance, 1995	Abonnement, 1995
Élasticité (η)	-0.7	-0.005*
Prix (p)	\$0.0604	\$3.50
Coût marginal (c)	0.25p (maximum)	1.25p
Taxe**	41%	53%

*Les estimations de l'élasticité sont tirées de Hausman et al. (1993)

**La taxe est calculée sur la base des recettes de la FCC sur les communications à la minute pour 1994-95, de façon à être cohérente avec les autres chiffres de Hausman.

En ce qui concerne les estimations des variables ci-dessus, le premier terme (perte de bien-être pour les producteurs) donne une perte de 0.52 \$ par dollar collecté et le second chiffre (perte de bien-être pour les usagers) donne une perte de 0.13 \$ par dollar payé, soit une perte totale de 0.65 \$ par dollar collecté³.

L'autre possibilité serait de taxer l'abonnement. Dans ce cas, le premier terme donne un gain de \$0.00125 (puisque le prix est actuellement fixé à un niveau inférieur au coût marginal à long terme) et le second terme donne une perte de \$0.00107 par dollar collecté, pour une variation nette de bien-être insignifiante. De fait, la perte pour l'utilisateur tombe de 0.13 \$ à pratiquement zéro.

Cette différence d'impact entre les deux taxes s'explique par le fait que l'élasticité de la demande d'abonnement est très faible alors que l'élasticité de la demande en fonction du prix des communications longue distance est beaucoup plus élevée. Au moment de décider de la taxe à adopter, il faut tenir compte de l'impact du degré de couverture sur les pertes sèches. On remarquera que le fait de taxer l'abonnement à la ligne entraîne sans doute une très faible perte d'abonnés, à moins qu'il n'existe des programmes destinés à réduire le tarif d'abonnement pour les usagers à bas revenu, notamment le programme Lifeline aux États-Unis et le programme LUS de British Telecom.

La méthode ci-dessus calcule l'impact moyen d'une taxe donnée t et non l'impact de la hausse de la taxe de t à $t+\varepsilon$. Une méthode plus complexe consiste à calculer la perte sèche *marginale* résultant de l'augmentation d'une taxe. La perte marginale par unité de taxe collectée mesure le coût d'une petite hausse d'une taxe préexistante, et le résultat est généralement supérieur à la perte sèche moyenne. C'est cette approche que suit Hausman (1996), qui estime la perte marginale à 1.25 \$ par dollar collecté avec taxation des communications longue distance et à 0.0006 \$ par dollar collecté avec taxation du prix de l'abonnement. Certes, ces chiffres se fondent sur une estimation des élasticités et des taxes dans un seul pays. Cependant, la méthode peut être appliquée aux élasticités et aux taxes estimées par les instances de réglementation de n'importe quel autre pays.

Il convient de comparer ces pertes marginales aux estimations de l'efficacité marginale de la fiscalité générale, comme dans le tableau ci-dessous.

³ Du fait d'une forte baisse des taux d'imposition, la perte subie par les usagers a chuté de près de 72 % entre 1995 et 2002.

Tableau 5. Effets d'efficacité marginale de taxes supplémentaires collectées

Source de l'estimation	Type de fiscalité	Effet marginal
Ballard, Shoven et Whalley (1985)	Budget général	0.37
Browning (1987)	Budget général	0.40
Bovenberg et Goulder (1996)	Budget général	0.26
Hausman (1981b)	Impôt sur le revenu	0.41
Feldstein (1999)	Impôt sur le revenu	1.26

Ces estimations se fondent sur des données concernant les États-Unis et ne sauraient donc être considérées comme représentatives de tous les pays. Cependant, au moins pour les États-Unis, les chiffres indiquent qu'un impôt général engendre une perte sèche plus réduite qu'une taxe sectorielle frappant les communications longue distance. Une taxe sur la redevance mensuelle d'abonnement entraînerait une perte encore plus faible.

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QUESTIONNAIRE SUBMITTED BY THE SECRETARIAT

These questions are designed to better understand the features of your regulatory regime related to non-commercial service obligations, particularly obligations frequently called “universal service obligations” (USOs). These obligations are commonly found in network industries, particularly telecommunications, electricity, post and transport. These obligations may provide significant social value and reflect distributional choices made by governments. However, the general principles for the designation and implementation of universal services often receive little attention. These questions are intended to provide a guide for how you might present your approach to universal service obligations. If responses are provided for every industry in which USOs exist in your country, this questionnaire could result in a large amount of information. We therefore invite you to focus on the most interesting examples.

The primary issue underlying these questions is whether and how to meet USOs while liberalizing an industry or one segment of an industry. This is an important question because USOs are often cited as a reason to maintain an incumbent monopoly.

- One approach would state that liberalization is undesirable because liberalization would significantly increase the total costs of industry operation, holding output constant.
- Another approach might state that liberalization is desirable, especially when the incumbent organization is inefficient, but that payments must be made to the provider of the universal service to compensate for the losses incurred through providing the service.
- Another approach might state that liberalization is desirable and that no payments are necessary for a variety of reasons, including that the universal services are provided at costs significantly in excess of efficient costs or that the money losing services do not actually lose money, either because the accounting of costs is incorrect or because there are significant financial benefits that arise from being designated as the universal service provider.

Different approaches may be needed in different industries and countries because the relevant supply, demand and informational characteristics may vary substantially.

I would like to draw your attention to the following documents:

- Non-commercial Service Obligations and Liberalization (a preliminary version of the background note for the roundtable on non-commercial service obligations) DAF/COMP/WP2(2003)5, 23 April 2003, available on OLIS.
- Universal Service Obligations and Broadband (a Working Party on Telecommunications Information and Services Policy (TISP) report that explores the issue of whether broadband should become a universal service obligation) DST/ICCP/TISP(2002)4/FINAL,

Overview

Please state your most common definitions of USOs.

Please list the primary telecommunications, post, transport and electricity services that are covered by non-commercials service obligations.

Are there any general government policies towards USOs? For example, one policy might be that if an incumbent claims it has a right to receive payment for providing universal service, then the service, in a government determined geographic area, will be put up for bidding. Many governments have recently considered whether broadband Internet service should be made a USO. Most have decided that such a USO is not appropriate at the moment. What services are currently being considered as potential universal service obligations?

Have non-commercial service obligations impacted efforts at liberalization? Please discuss how, in liberalizing industries, USOs have been met.

Have non-commercial service obligations changed with privatisation? Please discuss the role of privatisation in the definition and financing of USO's.

Deciding to make a service a USO. Please explain factors that are considered for deciding whether a service should be a universal service obligation. Are these designations reviewed on a regular basis? If not, why not?

State whether universal service access is also considered as an option. For example, with Internet service, a user can go to an Internet café to access the network or stay at home. Staying at home requires access to a computer, which many disadvantaged consumers do not have. Thus universal service access may be preferred, through sharing of common facilities.

Evidence of underprovision. Please state whether there is any evidence that, without USOs, a service would be underprovided and that many people would not choose to purchase the service. What sort of evidence is required to show that an individual service should be subsidized via a USO? Are the subsidies general or targeted at the desired user group that would not receive the service?

Entry barriers. Does establishing a USO occur in conjunction with entry restrictions that exclude competitors from part or all of a market? Is the argument based on cream-skimming concerns? If so, is any evidence required that, in the presence of cream-skimming, total industry costs will increase significantly? Are entry barriers less appropriate if an industry is operating inefficiently?

Definition of universal service. The precise definition of a universal service can often play a significant role in determining who can provide the universal service. Some definitions are physical, such as fixed line access to a general telephone network, and other definitions are conceptual, such as a service that allows for the connection of a user to the general telephone network from a fixed location. Sometimes definitions are enshrined in law, and difficult to change, and at other times they are enshrined in regulations, and easier to change. How are services defined – in physical or conceptual terms? Are efforts made to define services so that multiple companies could provide them?

Selection of universal service provider. The provider of a universal service, such as public phone service, can be selected by legislation, by a regulator, or by a bidding process. Are there any other mechanisms that are used? Generally, how is the provider of a universal service selected? Is the selection based at a national level? Could the selection be based on a narrower geographic level? If the selection were based at a narrower level, would that increase the number of potential providers of the service?

Separation of price from cost. It is often the case that the cost that varies the most between customers is the cost of building a connection to the customer, such as providing the line that carries electricity into a customer's home. The cost of electricity itself may vary much less, once the initial

connection has been made. Thus the distortions that arise from uniform pricing may be greater for the initial connection cost of a network service than for the ongoing provision of that service. Is the physical connection cost in the electricity and telephone industry related to the actual cost of building a connection to a customer? If so, can the customer seek bids from multiple builders of a physical connection, or is there only one provider? If rural customers are given preferential tariffs that do not reflect the cost of serving them, please explain why rural customers are given preference over urban customers.

Benefits to provider of universal service. Does the provider of a universal service receive any explicit payment for the provision of that service? If so, how large are the payments? Must the universal service provider demonstrate that it provides the services at a non-commercial rate?

On what basis are costs calculated for USO provision? Are the costs used historical? Are the costs forward-looking? Are models used to estimate the costs? Are these engineering models, as perhaps for telephone and electricity services? Are these process models, as might be appropriate for postal delivery? Is the objective to provided services of a predefined quality at the minimum price? How is the minimum established? Establishing the costs of efficient provision can be a particularly difficult problem with respect to labor inputs. How is the efficient labor cost calculated, if it is different from the actual labor cost?

Does the provider receive advantages from providing the universal service? How are benefits of universal service provision evaluated? Are the techniques for evaluating the advantages scientific?

Financing.

Are there any general government policies with respect to the financing of USO's? Examples might include internal financing within the firm or financing through general taxation. When the cost of USO's is calculated, are competitors required to participate in its financing? What mechanism is used to calculate the contribution of competitors? If market share is involved, how is each market participant share calculated?

If the universal service provider receives a payment, how is the decision made of whether a universal service will be paid for through general taxation or taxes on users of related services?

For universal services that are paid for by general taxes, are the costs of rural customers USO obligations paid by the federal government, regional or local authorities? Might it be more efficient to allow the local authorities to choose (and subsidize) the level of services than for the federal authorities to do this? Why or why not? What are the problems with local authority payment? What are the benefits?

For universal services that are not paid for by general taxes, is internal cross-subsidization a preferred solution for financing universal service? If so, why? Is such a program justified? Would the costs of providing a service with different prices outweigh the benefits?

For services that are subsidized by taxes on users of related services, how are the related services chosen? Is the harm to consumers of related services (through increased taxation and reduced consumption) compared to the benefits for the users of the universal service?

In some industries, there may be substantial capital investment involved in providing a universal service, especially if physical connections must be built to individual users, as with fixed telephone service and electricity connections. In contrast, in some other industries, such as mail delivery, capital investment may be less critical as an issue. If the universal service provider for an existing service in a given geographic area is changed, what is the appropriate way to deal with stranded capital investment?

Role of competition authority. USOs often create entry barriers or payments from new entrants to incumbents. As a result, such obligations can have a significant impact on competition and the efficient provision of services and some observers might argue that competition authorities should be involved, in at least an advisory capacity, on government decisions related to the provision of universal service obligations. What is your view on the appropriate role of a competition authority with respect to USOs?

USO's are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted/not accepted that argument? Please describe your main cases.

Web sites. Please provide web site addresses containing government publications related to the topic of non-commercial service obligations or USOs.

INDUSTRY-SPECIFIC QUESTIONS (Given that a number of different industries are impacted by non-commercial service obligations, we list some industry specific questions below, as a guide, but not with an expectation that responses be provided for each industry. It would be helpful to focus on the industry that might provide the most interesting responses, as an example of your country's approach to USOs.)

Post. Why should mailboxes not be deliverable by package delivery companies, if those companies provide a reimbursement to the postal service?

Electricity. Is there a uniform price for building a new physical connection to the customer? Is there a uniform price for electricity across regions with different costs? Can anyone besides the electricity transmission company build such a connection? Is distributed generation encouraged when it is economically reasonable?

Telecommunications. Should local fixed line phone service (excluding mobile) be considered a universal service, or should access to the telephone network (including mobile) be considered a universal service? Is the price for establishing a new residential connection to the network uniform? Can anyone besides the local telephone incumbent build such a connection? Is there any evidence that universal directory services would not be provided in absence of a universal service requirement? Should directory services be characterized as a universal service?

Transport. Are local transport services subsidized by local or regional bodies or by a national authority? How are funds allocated to local services? Can local passenger train services be stopped if uneconomic? If not, how can their losses be reduced?

QUESTIONNAIRE SOUMIS PAR LE SECRÉTARIAT

Les questions qui suivent ont pour but de permettre une meilleure compréhension de la réglementation relative aux obligations de services non commerciaux, et notamment celles que l'on qualifie fréquemment d'« obligations de service universel » (OSU) dans votre pays. Ces obligations concernent le plus souvent les industries de réseau, et plus particulièrement les télécommunications, l'électricité, la poste et le transport. Ces obligations présentent souvent une valeur sociale significative et reflètent les choix redistributifs des gouvernements. Toutefois, on s'intéresse peu aux principes généraux qui président à la désignation et à la fourniture de ces services universels. Ces questions sont destinées à vous guider quant à la manière de présenter votre approche des obligations de service universel. Si vous répondez à ces questions pour chaque secteur d'activité où existent des OSU dans votre pays, le questionnaire pourra être source d'une multitude d'informations. C'est pourquoi nous vous conseillons de privilégier les exemples les plus révélateurs.

Le point essentiel est de savoir s'il faut ou non assurer les obligations de service universel, et comment, lorsqu'on libéralise un secteur ou une branche d'activité. C'est là une question centrale, car l'obligation de service universel figure souvent parmi les arguments invoqués pour justifier le maintien d'un monopole.

- Une première approche consiste à dire que la libéralisation n'est pas souhaitable car elle augmenterait considérablement le coût global de l'exploitation du secteur, à production constante.
- Une autre approche consiste à dire que la libéralisation est souhaitable, en particulier lorsque l'opérateur historique est inefficace, sous réserve que l'opérateur du service universel reçoive une compensation pour les pertes qu'induit pour lui la fourniture de ce service.
- Une autre approche consiste à dire que la libéralisation est souhaitable, mais sans compensation pour l'opérateur, et ce, pour de nombreuses raisons, par exemple parce que les services universels sont fournis pour un coût largement supérieur aux coûts d'exploitation, ou parce que les services non rentables ne perdent pas réellement d'argent, soit parce que le calcul des coûts est incorrect, soit parce que le statut de prestataire de service universel apporte à l'opérateur des avantages financiers substantiels..

Il peut s'avérer nécessaire de recourir à différentes approches selon les secteurs et les pays en fonction des caractéristiques de l'offre et de la demande et de la qualité de l'information disponible.

J'aimerais attirer votre attention sur les documents suivants :

- Les obligations de services non commerciaux et leur libéralisation (version préliminaire de la note de référence pour la Table ronde sur les obligations de services non commerciaux) DAF/COMP/WP2(2003)5, 23 avril 2003, disponible sur OLIS.
- Les obligations de service universel et la bande large (un rapport du Groupe de travail sur les politiques en matière de communications et de services d'information (PTSI) qui pose la question

Généralités

Veillez indiquer les définitions de l'obligation de service universel que vous utilisez le plus communément.

Veillez faire une liste des services essentiels dans les domaines des télécommunications, de la poste, du transport et de l'électricité, qui sont couverts par des obligations de services non commerciaux.

Existe-t-il une politique gouvernementale relative aux obligations de service universel ? Par exemple, il pourrait être prévu, si un opérateur historique demande le droit d'être payé pour la fourniture d'un service universel, de livrer ce service à la concurrence, dans une zone géographique donnée délimitée par les autorités. De nombreux gouvernements se sont récemment demandés s'ils devaient faire de la bande large une obligation de service universel. Beaucoup d'entre eux ont estimé qu'une telle obligation de service universel ne se justifiait pas pour le moment. Quels sont les services susceptibles de faire l'objet d'une obligation de service universel ?

Les obligations de services non commerciaux ont-elles eu une incidence sur les efforts de libéralisation ? Expliquez comment les obligations de service universel ont été assurées dans les secteurs en voie de libéralisation.

Les obligations de services non commerciaux ont-elles changé avec la privatisation ? Veuillez exposer le rôle de la privatisation dans la définition et le financement des obligations de service universel.

Décision de faire d'un service une obligation de service universel. Veuillez expliquer quels facteurs sont pris en compte dans la décision de transformer un service en obligation de service universel. Ces décisions sont-elles revues régulièrement ? Dans la négative, pourquoi ?

Indiquer si l'accès aux services universels est également considéré comme une option. Par exemple, avec le service Internet, un utilisateur peut se rendre dans un cybercafé pour accéder au réseau ou le faire de son domicile. Dans ce cas, il a besoin d'un ordinateur, que de nombreux consommateurs défavorisés ne possèdent pas. On peut donc préférer l'accès au service universel, par le partage d'installations communes.

Preuve de l'insuffisance de la couverture. Veuillez indiquer s'il existe une quelconque preuve que, sans les OSU, la couverture d'un service risquerait d'être insuffisante et que de nombreuses personnes choisiraient de ne pas acquérir ce service. Quelles preuves sont nécessaires pour démontrer qu'un service donné devrait être subventionné par le biais d'une obligation de service universel ? Est-ce que les subventions sont générales ou ciblées sur un groupe d'utilisateurs qui ne recevrait pas le service en question ?

Barrières à l'entrée. La mise en place d'une obligation de service universel s'accompagne-t-elle de barrières à l'entrée qui excluent les concurrents d'une partie ou de l'ensemble du marché ? L'argument est-il fondé sur la volonté d'empêcher un écrémage ? Si tel est le cas, faut-il apporter la preuve qu'une stratégie d'écrémage entraînerait une forte augmentation des coûts industriels globaux ? Les barrières à l'entrée sont-elles moins adaptées lorsqu'un secteur est inefficace ?

Définition du service universel. La définition précise d'un service universel peut souvent jouer un rôle important pour déterminer qui peut fournir ce service. Certaines définitions sont physiques, comme l'accès à une liaison filaire au réseau téléphonique général, tandis que d'autres sont plus théoriques, comme le service permettant le raccordement d'un usager au réseau téléphonique général depuis un endroit fixe.

Parfois, les définitions sont inscrites dans les textes législatifs, et donc difficiles à changer, à la différence de celles qui sont inscrites dans les règlements, plus aisément modifiables. Comment les services sont-ils définis, en termes physiques ou théoriques ? Des efforts sont-ils faits pour définir ces services de telle sorte que de nombreuses entreprises soient à même de les fournir ?

Sélection de l'opérateur de service universel. L'opérateur d'un service universel, comme le téléphone public, peut-être sélectionné par voie législative, par les autorités de réglementation ou par un procédé de mise en concurrence. D'autres mécanismes sont-ils utilisés ? Généralement, comment les opérateurs de service universel sont-ils sélectionnés ? La sélection se fait-elle à l'échelon national ? La sélection pourrait-elle se faire plus localement ? Si tel était le cas, le nombre d'opérateurs potentiels serait-il plus élevé ?

Séparation du prix et du coût. Généralement, le coût qui varie le plus selon les clients est celui du raccordement au réseau, comme la construction de la ligne de distribution de l'électricité jusqu'au domicile de l'utilisateur. Le coût de l'électricité elle-même est moins variable, une fois le raccordement établi. Ainsi, les distorsions qu'induit l'uniformité des prix peuvent être plus fortes pour ce qui est du coût du raccordement initial au réseau que pour la fourniture courante du service. Le coût du raccordement dans les secteurs de l'électricité et du téléphone est-il lié au coût effectif de l'installation de la ligne pour le client ? Dans l'affirmative, le client peut-il faire jouer la concurrence auprès de différents opérateurs, ou n'y en a-t-il qu'un seul ? Si les clients des zones rurales obtiennent des tarifs préférentiels qui ne reflètent pas le coût de la fourniture du service, expliquez pourquoi ils reçoivent un traitement privilégié par rapport aux citoyens.

Avantages pour les opérateurs de service universel. L'opérateur de services universels est-il rétribué de manière explicite pour la fourniture de ce service ? Si oui, quel est le montant de cette rétribution ? L'opérateur de service universel doit-il prouver qu'il fournit ce service à un tarif non commercial ?

Comment le coût de la fourniture de services universels est-il calculé ? Les coûts utilisés renvoient-ils à la valeur d'acquisition ? Relèvent-ils d'une estimation ? Utilise-t-on des modèles pour estimer ces coûts ? Ces modèles sont-ils techniques, comme pour les services d'électricité et de téléphone ? S'agit-il de modèles portant sur les processus, ce qui est plus adapté à la distribution postale ? L'objectif est-il de fournir des services d'une qualité prédéfinie à un prix minimum ? Comment ce minimum est-il établi ? Déterminer les coûts d'une prestation de service efficace par rapport à la quantité de travail peut se révéler un problème délicat. Comment est calculé le coût du travail dans des conditions d'efficacité, s'il est différent du coût de main-d'œuvre effectif ?

Fournir un service universel donne-t-il des avantages aux opérateurs ? Comment ces avantages sont-ils évalués ? Les techniques d'évaluation sont-elles scientifiques ?

Financement

Existe-t-il une politique gouvernementale générale concernant le financement des obligations de service universel ? Les exemples peuvent comprendre le financement interne au sein de l'entreprise ou le financement par l'impôt. Lorsque le coût de l'obligation de service universel est calculé, les concurrents doivent-ils participer à son financement ? Quel est le mécanisme utilisé pour calculer la contribution des concurrents ? S'il est question de parts de marché, comment calcule-t-on les parts de marché respectives de chaque participant ?

Si l'opérateur de services est rétribué, comment décide-t-on si ce service universel sera financé par l'impôt général ou par une taxe frappant les usagers des services en question ?

Pour les services universels financés par l'impôt général, le coût de la fourniture du service à la population rurale est-il financé par les autorités centrales (fédérales), les autorités régionales ou les autorités locales ? Serait-il plus efficace de laisser les autorités locales plutôt que les autorités fédérales choisir (et subventionner) le niveau de services ? Pourquoi, ou pourquoi pas ? Quels sont les problèmes liés à la prise en charge par les autorités locales ? Quels en sont les avantages ?

S'agissant des services universels qui ne sont pas financés par l'impôt général, la subvention interne croisée constitue-t-elle une solution privilégiée pour le financement des services universels ? Dans l'affirmative, pourquoi ? Un tel programme est-il justifié ? Les coûts de la fourniture d'un tel service à différents tarifs l'emporteraient-ils sur les avantages ?

Dans le cas des services subventionnés par le prélèvement de taxes sur les usagers de services connexes, comment choisit-on ces services ? Est-ce que les inconvénients pour les usagers des services connexes (alourdissement de la pression fiscale et réduction de la consommation) sont mis en regard des avantages pour les usagers du service universel ?

Dans certains secteurs, les dépenses d'équipement associées à la fourniture de services universels peuvent être importantes, en particulier dans le cas où il faut construire des lignes pour raccorder les usagers, comme dans le cas des services de téléphonie fixe ou du raccordement au réseau électrique. En revanche, dans d'autres secteurs, comme la distribution de courrier, les dépenses d'équipement n'occupent pas une place aussi déterminante. Si le prestataire du service universel chargé de fournir un service existant dans une zone géographique donnée change, quelle est la façon la plus adaptée de gérer les coûts échoués ?

Rôle des autorités de la concurrence. L'obligation de service universel crée souvent des barrières à l'entrée ou impose aux nouveaux arrivants sur le marché de dédommager les opérateurs en place. Par conséquent, ces obligations peuvent avoir un impact considérable sur la concurrence et sur l'efficacité de la fourniture des services, ce qui pourrait inciter certains observateurs à suggérer l'intervention des autorités de la concurrence, au moins à titre consultatif, dans les décisions des pouvoirs publics en rapport avec la fourniture de services universels. Selon vous, quel devrait être le rôle des autorités de la concurrence en ce qui concerne les obligations de service universel ?

L'obligation de service universel est fréquemment utilisée pour justifier des comportements abusifs de la part des opérateurs historiques. Y a-t-il eu dans votre juridiction des procédures antitrust dans le cadre desquelles les autorités de la concurrence ont accepté ou refusé cet argument ? Veuillez décrire les principaux cas.

Sites Internet. Veuillez communiquer les adresses des sites contenant les publications officielles relatives aux obligations de services non commerciaux ou obligations de service universel.

QUESTIONS PROPRES AUX DIFFÉRENTS SECTEURS D'ACTIVITÉ (étant donné qu'un grand nombre de secteurs sont concernés par les obligations de services non commerciaux, nous proposons ci-après une liste de questions spécifiques pour vous guider, sans attendre pour autant de réponse pour tous les secteurs. Il serait utile de privilégier le secteur pour lequel les réponses sont le plus éloquentes pour illustrer comment votre pays aborde la question des obligations de service universel.)

Poste. Pourquoi la distribution de courrier ne serait-elle pas faite par les entreprises de livraison de colis, si ces dernières remboursent les services postaux ?

Électricité. Existe-t-il un prix uniforme s'appliquant à la construction des lignes électriques pour le raccordement des usagers ? Existe-t-il un prix uniforme pour l'électricité dans des régions où les coûts

diffèrent ? Une société autre que celle qui exploite les lignes de transport d'électricité peut-elle construire une telle ligne ? La génération répartie est-elle encouragée lorsqu'elle est économiquement raisonnable ?

Télécommunications. Les services locaux de téléphonie fixe (mobiles exclus), ou bien l'accès au réseau téléphonique (mobiles compris) doivent-ils être considérés comme un service universel ? Le prix du raccordement au réseau pour un usage résidentiel est-il uniforme ? Le raccordement peut-il être réalisé par une autre société que l'opérateur historique ? Est-on fondé à penser que le service de renseignements universel ne serait pas assuré en l'absence de l'obligation de service universel ? Le service de renseignements doit-il être défini comme un service universel ?

Transport. Les services locaux de transport sont-ils subventionnés par des instances locales ou régionales ou par un organisme national ? De quelle manière les crédits sont-ils affectés aux services locaux ? Un service local de transport ferroviaire de passagers peut-il être abandonné s'il n'est pas rentable ? Dans la négative, comment réduire ses pertes ?

AUSTRALIA

I. Introduction

In Australia, community service obligations (CSOs) are a significant component of the social policies of Governments at the Commonwealth, State and Territory levels. As such, the provision of CSOs is a very broad topic, covering a range of sectors across the economy. Consequently, the paper focuses on the ongoing provision of CSOs in the context of Australia's National Competition Policy (NCP) reforms. Examples are provided of the broad range of CSOs, and the various ways of providing them, across different sectors of the economy.

II. Definition

Australian Governments have adopted a commonly agreed definition of CSOs. The Standing Committee on National Performance Monitoring of Government Trading Enterprises (the Committee) proposed the following definition of a CSO:

A Community Service Obligation arises when a government specifically requires a public enterprise to carry out activities relating to outputs or inputs which it would not elect to do on a commercial basis, and which the government does not require other businesses in the public or private sectors to generally undertake, or which it would only do commercially at higher prices.¹

This definition contains several key elements. First, a CSO is required to be a government directive to a Government Trading Enterprise (GTE). Second, the definition requires that, under the same conditions, a CSO would not have been provided if the enterprise assessed the proposal on purely commercial grounds. Finally, the specified service or function must provide an identified social benefit.

Most Australian Governments accept the Committee's definition, although many have made slight alterations to it. For example, the Victorian Government explicitly acknowledges that both directives to carry out an uncommercial activity and directives to cease carrying out a commercial activity are CSOs, while the New South Wales Government requires the relevant government directive to identify a specific social objective.

III. National Competition Policy and Community Service Obligations

In 1995, Australian Governments agreed on the NCP package, which consisted of a broad suite of reforms responding to the recommendations of the 1993 Report of the Independent Committee of Inquiry into National Competition Policy. These reforms included extending the operation of Australia's competition laws, the introduction of a competitive neutrality framework, an agreed approach to the structural reform of public monopolies, a commitment to review existing legislation that restricts competition and the introduction of an access regime for significant infrastructure facilities. These reforms and principles have an important role in Australia's public sector resource management framework. To the extent that these reforms focussed on GTEs, they reflected a natural extension of ongoing public sector

¹ Steering Committee on National Performance Monitoring of Government Trading Enterprises 1994, *Community Service Obligations: Some Definitional, Costing and Funding Issues*, April, Canberra.

reforms of the 1980s and early 1990s, which focussed on winding back budget subsidies to inefficient GTEs and adoption of commercialisation principles.

The National Competition Council (NCC), an independent agency, reports annually on the compliance by each jurisdiction with NCP commitments. The NCC has an assessment function, and can make recommendations to the Commonwealth on the level of competition payments to the States and Territories. These recommendations can include withholding or suspending payments. The administration of the NCP framework is separate from the administration of competition law, and hence does not involve Australia's competition law regulator.

NCP recognises that government business activities provide economic and social benefits to the community beyond those purchased by users of their goods and services. Australia's NCP Agreements, signed by all Australian governments in 1995, recognise CSOs in two ways.

First, when a government is introducing competition to a market traditionally supplied by a public monopoly, or before privatising a public monopoly, it is required to review the merits of any CSOs undertaken by the public monopoly and the best means of funding and delivering any mandated CSOs.

Second, in applying the competitive neutrality principles contained in the NCP Agreements, Governments are not required to undertake a competitive process for the delivery of CSOs, and are free to determine who should receive a CSO payment or subsidy, which should be transparent, appropriately costed and directly funded by government.

The objective of competitive neutrality policy is to eliminate potential resource allocation distortions arising from the public ownership of significant business activities. Specifically, the policy requires that government business activities operating where there are actual or potential competitors should not enjoy net competitive advantages over private sector competitors simply by virtue of public sector ownership. The Government has noted that this will help ensure that government businesses compete on their own merits and not through unfair advantages resulting from public ownership.

Without clear identification and implementation of CSOs, it can be difficult to determine whether the prices charged by a government business reflect full cost attribution (as required by the NCP Agreements) or contain an element of subsidy (or penalty) due to government ownership. To that end, governments have recognised that it is preferable for CSOs to be clearly identified, funded from the Budget and reported by the government. This approach can also help to reduce resource allocation distortions, enhance community awareness of the CSOs and facilitate comparisons with other demands on public funds.

All governments have acknowledged, in their competitive neutrality policy statements and related pricing guidelines, the need to clarify the objectives and specify the non-commercial obligations of their businesses.

The NCC has no role in assessing whether CSO objectives are appropriate – that is a matter for governments. Rather, governments' provision of public information about their CSOs enables the NCC to confirm that CSOs are specified and funded such that the prices charged by a government business reflect full cost attribution, with minimal impact on the efficient provision of other commercial services.

IV. Funding

Australian Governments fund CSOs in a variety of ways, including:

- direct funding (including contracting out);

- cross-subsidies between different users; and
- acceptance of lower rates of return on capital.

The Productivity Commission monitors the financial performance of 64 Australian GTEs. Of these, 27 reported direct government funding of AU\$2.4 billion in financial year 2000-01 for the provision of CSOs². Some GTEs received CSO funding that was not disclosed in financial statements, while others were required to perform CSOs without reimbursement. Some GTEs do not report the activity to which CSO funding relates. The NCC has flagged that it will assess matters of costing, funding and reporting of CSOs with governments over the period to the 2003 assessment³.

Each method of funding CSOs has its own costs and benefits, and Australian Governments recognise that the ways in which governments use their businesses to deliver CSOs can have a significant impact on resource allocation. For example, cross-subsidisation requires a GTE to charge higher prices to some users to recover losses incurred by supplying the CSO to other users, which can impact on resource allocation and generate production and consumption inefficiencies. Similarly, while direct funding avoids the resource allocation effects of cross-subsidisation, it has a real resource cost as it is financed through the tax system.

V. Costing

The Committee recommended that CSOs be costed at their avoidable cost. The avoidable cost method measures the extra cost (net of any revenue associated with the CSO) incurred by the GTE from providing the CSO (or alternatively the net cost that would be avoided if the CSO were not provided). Under this method, fixed costs that the GTE would have incurred without the CSO, even if that input is also used to provide the CSO, are not included in the avoidable cost.

In principle, Australian governments have accepted avoidable cost as the preferable method for measuring the financial value of CSOs provided by GTEs. In practice, however, governments use a range of methods, including foregone revenue (the difference between revenue received from each CSO customer and the cost of supply) and fully distributed cost.⁴ The fully distributed cost method allocates the GTE's total costs to all the activities it undertakes. This requires that some proportion of joint costs, such as overheads, must be allocated to CSOs, even though these costs would still have been incurred independent of the CSO.

A potential difficulty in costing CSOs is that judgements must be made about what a GTE would do in the absence of a government directive to undertake a CSO. A common example is that an assumption must be made about whether capital assets would be reduced if a CSO were terminated.

VI. Examples within Australia

Given the range of CSOs in Australia, which cover a number of jurisdictions and industries, the focus of the following examples has been on those CSOs that are most significant, or of particular interest. These examples cover different jurisdictions, and the transport, electricity, water, telecommunications and

² Productivity Commission 2002, *Financial Performance of Government Trading Enterprises 1996-97 to 2000-01*, July, Canberra.

³ National Competition Council 2002, *Assessment of government's progress in implementing the National Competition Policy and related reforms*, August, Melbourne.

⁴ Productivity Commission 2002, *Financial Performance of Government Trading Enterprises 1996-97 to 2000-01*, July, Canberra.

postal sectors of the economy. Typically, CSOs such as these examples are subject to periodic review processes.

Directly funded CSOs

It was earlier identified that 27 GTEs received \$2.4 billion in direct funding in 2000-01. These payments were mainly for the provision of goods and services at a price less than the cost of supply (other than concessions), or for the provision of pensioner and other concessions. Other CSOs included a sewerage infill program in Western Australia, and rail network access payments in Queensland. Around 56 per cent of CSO payments were to GTEs in the rail sector, with water (17 per cent) and electricity (15 per cent) accounting for most of the remaining balance.

GTEs in the urban transport and rail sectors were the most dependent on CSO revenue, with CSO payments accounting for 37 and 23 per cent of total sector revenues respectively in 2000-01. For three urban transport GTEs, CSO payments represented more than 40 per cent of operating revenue. CSOs in these sectors included the provision of non-commercial transport services and concessions for specified customers, such as pensioners and school students.

By way of example, the State Transit Authority received CSO funding from the New South Wales Government of AU\$19 million for the provision of non-commercial ferry services in Newcastle and Sydney and non-commercial bus services in Newcastle, and AU\$138 million for providing concession fares to pensioners and other eligible passengers. Similarly, the Australian Capital Territory Government provided CSO funding to a GTE for the provision of:

- school transport bus services and special needs transport (AU\$12 million);
- concession bus fares to pensioners and other eligible passengers (AU\$4 million); and
- non-commercial off-peak bus routes (AU\$10 million).

In the electricity and water sectors, CSO funding is commonly provided for pensioner and other concessions. For example, the New South Wales Government provided CSO funding of \$74 million to electricity distributors for the provision of pensioner and other concessions. In Victoria, water GTEs are funded to deliver pensioner concessions on water and sewerage charges, and relief grants to eligible customers.

The Telecommunications Universal Service Obligation (USO)

The USO is an obligation placed on the universal service provider (USP) to ensure that standard telephone services, payphones, and prescribed carriage services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business. Telstra is the sole USP, but additional USP's may be declared in the future.

Losses that result from supplying loss-making services in the course of fulfilling the USO are shared among carriers. The Australian Communications Authority (ACA) determines the cost of the USO. Carriers contribute in proportion to their share of total industry eligible revenue.

The Government has passed legislation that requires Telstra and other telephone companies to bear a 'digital data service obligation' (DDSO), which is the obligation placed on a digital service provider to ensure that digital data services are accessible to all people in Australia on an equitable basis, wherever they reside or carry on business. This obligation has two aspects:

- the ‘general digital data service’: Telstra must provide 96 per cent of the population with access to a 64kbps ISDN (Integrated Services Digital Network) service on demand; and
- the ‘special digital data service’: for the 4 per cent not able to access ISDN on demand, Telstra and Hotkey (the two service providers in this market) must provide service comparable to the 64 Kbps ISDN service, and reimburse 50 per cent of the price of purchasing the necessary satellite receiving equipment (up to a maximum of AU\$765). Telstra and Hotkey have elected to provide the service using one-way satellite technology.

Postal CSOs

Australia Post is required to meet specified CSOs, which are set out in legislation and require that:

- the corporation provide a letter service for both domestic and international letter traffic;
- the service be available at a single uniform rate within Australia for standard letters;
- the service be readily accessible to all Australians wherever they reside; and
- the performance standards for the service reasonably meet the social, industrial and commercial needs of the community. Performance standards relate to:
 - the frequency, speed or accuracy of mail delivery; or
 - the availability or accessibility of post-boxes or other mail lodgement points, or offices of Australia Post or other places from which Australia Post products or services may be purchased.

The cost of delivering CSOs in 2001-2002 was approximately \$88.2 million (Australia Post Annual Report 2001-2002). It is funded internally, by way of cross-subsidisation, through revenue generated from reserved services.

AUSTRIA

1. Telecommunication¹

Overview

- *Please state your most common definitions of USOs.*

For the purpose of this paper Non-commercial Services are understood as Universal Services. The universal service (US) means a minimum set of public services which is available to all users regardless of their geographical location (living or working) at an affordable price. It needs to fulfill a specified quality.

- *Please list the primary telecommunications, post, transport and electricity services that are covered by non-commercial service obligations.*

US in the Austrian telecommunications sector corresponds to the set described in the universal service directive 2002/22/EC and consists of

- access to publicly available telephone services via a connection at a fixed location, which provides also for data (functional internet access) and fax use
 - comprehensive directory enquiry service and directory
 - geographical coverage of public payphones
- *Are there any general government policies towards USOs? For example, one policy might be that if an incumbent claims it has a right to receive payment for providing universal service, then the service, in a government determined geographic area, will be put up for bidding. Many governments have recently considered whether broadband Internet service should be made a USO. Most have decided that such a USO is not appropriate at the moment. What services are currently being considered as potential universal service obligations?*

Such a policy or definition would be defined by the Ministry/Government and not by the national regulatory authority (NRA). A bidding process is foreseen in the Telecom Act where the preconditions are met.

- *Have non-commercial service obligations impacted efforts at liberalization? Please discuss how, in liberalizing industries, USOs have been met.*

No such study has been carried out so far, but US was set up as foreseen by EU legislation. Before liberalization of the telecom market 1998 there existed as well something like a universal service in Austria which differed from the present US mainly in the fact as there was no

¹ Contribution by the Regulatory Authority RTR

possibility of claiming compensation of universal service costs. Before liberalization there was only one undertaking which was able to provide US, but with liberalization more undertakings might be eligible to provide the US. Therefore a rule how to designate a USP was needed in the law.

- *Have non-commercial service obligations changed with privatisation? Please discuss the role of privatisation in the definition and financing of USO's.*

The USP is not yet fully privatized. Although several steps of privatization were made in the past (including going public), there were only small changes in the US regulation (due to changing EU law). Hence, there does not seem to be a strong context between privatization and US.

- *Deciding to make a service a USO. Please explain factors that are considered for deciding whether a service should be a universal service obligation. Are these designations reviewed on a regular basis? If not, why not?*

The primary source of definition of US is the EU law. This is a policy issue in which the NRA has no mandate.

- *State whether universal service access is also considered as an option. For example, with Internet service, a user can go to an Internet café to access the network or stay at home. Staying at home requires access to a computer, which many disadvantaged consumers do not have. Thus universal service access may be preferred, through sharing of common facilities.*

Such an approach is not followed in Austria, but there are several regional/national projects in place outside the scope of US (eg. internet access for schools).

- *Evidence of underprovision. Please state whether there is any evidence that, without USOs, a service would be underprovided and that many people would not choose to purchase the service. What sort of evidence is required to show that an individual service should be subsidized via a USO? Are the subsidies general or targeted at the desired user group that would not receive the service?*

No such study has been carried out so far. Outside US there exists a special service obligation, which means free monthly access to a phone line and one hour free of talking, which is targeted on low income and handicapped subscribers.

- *Entry barriers. Does establishing a USO occur in conjunction with entry restrictions that exclude competitors from part or all of a market? Is the argument based on cream-skimming concerns? If so, is any evidence required that, in the presence of cream-skimming, total industry costs will increase significantly? Are entry barriers less appropriate if an industry is operating inefficiently?*

Such an approach is not followed in Austria.

- *Definition of universal service. The precise definition of a universal service can often play a significant role in determining who can provide the universal service. Some definitions are physical, such as fixed line access to a general telephone network, and other definitions are conceptual, such as a service that allows for the connection of a user to the general telephone network from a fixed location. Sometimes definitions are enshrined in law, and difficult to change, and at other times they are enshrined in regulations, and easier to change. How are*

services defined – in physical or conceptual terms? Are efforts made to define services so that multiple companies could provide them?

US is defined in the Austrian Telecommunications Act which can be changed only by parliament. Regarding the universal service on access a soft formulation was used not to prevent mobile operators to be able to provide it.

- *Selection of universal service provider. The provider of a universal service, such as public phone service, can be selected by legislation, by a regulator, or by a bidding process. Are there any other mechanisms that are used? Generally, how is the provider of a universal service selected? Is the selection based at a national level? Could the selection be based on a narrower geographic level? If the selection were based at a narrower level, would that increase the number of potential providers of the service?*

Currently the universal service provider (USP) is obliged by law to provide the service on a nation wide basis. Once the prerequisites for a tender are met, the USP will be selected on that basis. The law provides for the possibility of tendering universal service in a regional or factual way which might increase the number of potential providers.

- *Separation of price from cost. It is often the case that the cost that varies the most between customers is the cost of building a connection to the customer, such as providing the line that carries electricity into a customer's home. The cost of electricity itself may vary much less, once the initial connection has been made. Thus the distortions that arise from uniform pricing may be greater for the initial connection cost of a network service than for the ongoing provision of that service. Is the physical connection cost in the electricity and telephone industry related to the actual cost of building a connection to a customer? If so, can the customer seek bids from multiple builders of a physical connection, or is there only one provider? If rural customers are given preferential tariffs that do not reflect the cost of serving them, please explain why rural customers are given preference over urban customers.*

The prices for universal service have to follow the approach of geographical uniformity stipulated by law thus some customers pay more than their actual costs and others pay less. If the distance between the subscriber and the network is more than 500 meters, then the subscriber pays the real cost for the access line exceeding 500 m.

Where possible, a customer can choose another supplier for the fixed access line than the USP but this will not be within universal service. There are some alternative access fixed network operators (especially using cable technology), but most of the subscribers are with the USP.

- *Benefits to provider of universal service. Does the provider of a universal service receive any explicit payment for the provision of that service? If so, how large are the payments? Must the universal service provider demonstrate that it provides the services at a non-commercial rate?*

The law offers the possibility to claim a financing of universal service costs. Once requested, the NRA has to determine the amount based on the calculation of the USP. If there is an unfair burden they will be financed by a fund.

- *On what basis are costs calculated for USO provision? Are the costs used historical? Are the costs forward-looking? Are models used to estimate the costs? Are these engineering models, as perhaps for telephone and electricity services? Are these process models, as might be appropriate for postal delivery? Is the objective to provided services of a predefined quality at*

the minimum price? How is the minimum established? Establishing the costs of efficient provision can be a particularly difficult problem with respect to labor inputs. How is the efficient labor cost calculated, if it is different from the actual labor cost?

If a request of financing is submitted the cost-standards requested by EU law must be followed.

- *Does the provider receive advantages from providing the universal service? How are benefits of universal service provision evaluated? Are the techniques for evaluating the advantages scientific?*

The evaluation of the advantages of the US provision – which for sure exist – is quite a difficult task.

Financing

- *Are there any general government policies with respect to the financing of USO's? Examples might include internal financing within the firm or financing through general taxation. When the cost of USO's is calculated, are competitors required to participate in its financing? What mechanism is used to calculate the contribution of competitors? If market share is involved, how is each market participant share calculated?*

The law provides for establishing a fund to collect payments of other telecommunications providers which will then be transferred to the USP. Providers with a turnover of less than € 5 mio are excluded. The individual contribution is calculated according to the market share in turnover of all eligible providers in the relevant market.

- *If the universal service provider receives a payment, how is the decision made of whether a universal service will be paid for through general taxation or taxes on users of related services?*

The specification of the financing mechanism was done in the Telecom Act by making provisions for establishing a fund.

- *For universal services that are paid for by general taxes, are the costs of rural customers USO obligations paid by the federal government, regional or local authorities? Might it be more efficient to allow the local authorities to choose (and subsidize) the level of services than for the federal authorities to do this? Why or why not? What are the problems with local authority payment? What are the benefits?*

n.a.

- *For universal services that are not paid for by general taxes, is internal cross-subsidization a preferred solution for financing universal service? If so, why? Is such a program justified? Would the costs of providing a service with different prices outweigh the benefits?*

A US financing mechanism (US fund) is foreseen in case of application.

- *For services that are subsidized by taxes on users of related services, how are the related services chosen? Is the harm to consumers of related services (through increased taxation and reduced consumption) compared to the benefits for the users of the universal service?*

n.a.

- *In some industries, there may be substantial capital investment involved in providing a universal service, especially if physical connections must be built to individual users, as with fixed telephone service and electricity connections. In contrast, in some other industries, such as mail delivery, capital investment may be less critical as an issue. If the universal service provider for an existing service in a given geographic area is changed, what is the appropriate way to deal with stranded capital investment?*

The method of designating a USP is in the first way a nomination by law. If the prerequisites for a tender exist then US provision will be tendered. Operators will have incentives not to lose their investments and may participate in the tender. Likewise, a new operator wishing to take part in the tender has as well to think about the fact that maybe in the next tender he will not be the winner but another operator. However, for the time being, this question was not discussed/analyzed in detail.

- *Role of competition authority. USOs often create entry barriers or payments from new entrants to incumbents. As a result, such obligations can have a significant impact on competition and the efficient provision of services and some observers might argue that competition authorities should be involved, in at least an advisory capacity, on government decisions related to the provision of universal service obligations. What is your view on the appropriate role of a competition authority with respect to USOs?*

These aspects are currently dealt with by the NRA.

- *USO's are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted/not accepted that argument? Please describe your main cases.*

n.a.

- *Web sites. Please provide web site addresses containing government publications related to the topic of non-commercial service obligations or USOs.*

The homepage of the regulatory authority for telecommunications may be accessed via www.rtr.at where the interested one can find some information on universal service (in German: Universaldienst).

- *Telecommunications. Should local fixed line phone service (excluding mobile) be considered a universal service, or should access to the telephone network (including mobile) be considered a universal service? Is the price for establishing a new residential connection to the network uniform? Can anyone besides the local telephone incumbent build such a connection? Is there any evidence that universal directory services would not be provided in absence of a universal service requirement? Should directory services be characterized as a universal service?*

Please find the answers in the relevant questions answered before. The provision of universal directory services (telephone and book) is a competition service in Austria. However, directory services are part of US according to the law.

2. Energy²

Austria implemented the Electricity Directive of the European Union by the "Elektrizitätswirtschafts- und -organisationsgesetz" (ElWOG) published in 1998. It was very moderate and met the minimum requirements of the EU-Directive. One year after ElWOG 1998 became operative a proposal for a comprehensive amendment was launched. The so-called ElWOG 2000 set the new date of liberalisation in Austria on 1st October 2001. The electricity market was fully liberalised to all customers and two new regulatory bodies were created. The Energie-Control Ltd. (E-Control) and the Electricity-Control Kommission were founded in Spring 2001. They are responsible for guiding the market transition, monitoring the competition and keeping a close eye on network access and especially on network charges.

Calculation of Network Charges

The system access charges are determined on a cost-plus basis, must reflect realistic cost allocation and must be set as fixed prices. The network charges have to cover all costs related to the services of the network operator. Following network charges are fixed by the Energie-Control Kommission:

- a grid utilisation charge,
- a grid provision charge,
- a charge for grid losses, as well as
- service fee.

For example, the grid utilisation charge refunds the cost for construction, extension, maintenance and operation of the grid to the grid operator. In particular the grid utilisation charge contains the following services:

1. maintenance of voltage and resourcing of wattless current,
2. operation of the grid,
3. reconstruction of electricity supply,
4. congestion management and
5. data management.

The network charges are the same within each network area (in general the former service areas of the regional municipals) and differ only among voltage levels. However, the network charges vary among the network areas. The lowest prices can be found in Eastern and Western Austria (Vienna, Lower Austria, Tyrol and Vorarlberg). The highest network charges can be found in Burgenland, Styria and Upper Austria. The network charges have decreased substantially since the opening of the market and also an equalisation of the charges took place. The network charges can be seen as postage stamp-tariffs. Dependent on the location of the customer but independent of the feed in of the electricity the network charges are calculated.

² Contribution by the Regulatory Authority Energie-Control Ltd.

Unbundling

Due to the lack of legal unbundling of the vertical integrated utilities the allocation of costs is difficult for the regulatory authority while checking the costs of the network operators. In order to allocate the costs adequately and to prevent cross-subsidisation legal unbundling should be implemented.

E-Control's competition control responsibilities involve ensuring that market participants are given equal treatment by monopolies (grid operators). If E-Control identifies any market abuse while exercising its supervisory and monitoring role, it is required to take immediate action to restore compliance with the law. E-Control investigates whether grid operators are acting in accordance with the law and the Market Rules and whether customers who switch to a supplier other than the local incumbent receive equal treatment to those who continue to purchase their power from the latter. Generally such cases concern compliance with the transfer process laid down by the Other Market Rules.

The inadequate unbundling represents a major problem concerning equal treatment of all customers (whether from the vertical integrated company or from other suppliers). By preferable treatment of the integrated supply department (forwarding of information) the local player has advantages in competition over their competitors. Although the market rules provide clear guidelines in order to avoid discrimination in the market the implementation turns out to be difficult.

An arbitration panel was established at E-Control on 1st October 2002. Market participants can complain to the panel about service quality or invoiced amounts that they do not understand. E-Control is required to seek a mutually acceptable solution within six weeks. In arbitration cases concerning consumers in the meaning of the Consumer Protection Act, E-Control is obliged to involve the Federal Chamber of Labour in the proceedings.

Incentive Regulation

Even if unbundling is done correctly the ultimate regulatory question remains: What is the right price a network operator should be allowed to charge for its services? One step further down the way to get closer to the answer was taken by E-Control, when it decided in 2002 to carry out a benchmarking exercise among the 136 Austrian distribution network operators and to introduce a system of incentive-based regulation from the beginning of 2004.

The regulator compares by the means of benchmarking certain inputs and outputs of the distributors. Such inputs can typically be capital and labour expressed in monetary terms (costs), whereas outputs are above all the amount of energy supplied or peak loads served on different voltage levels. Additionally, structural differences between supply areas have to be taken into account by including appropriate environmental variables. As a result of the exercise the companies' efficiencies will be revealed and measured against a frontier spanned by the relatively most efficient Austrian distribution businesses. An efficiency score of e.g. 0.8 of a company 'x' compared to the efficiency frontier of 1.0 means that there is a network operator, which is able to produce the same output using 20 % less of an input. It implies for company 'x' that it could catch up to the frontier by saving 20 % of its costs.

At what pace the catch-up should take place will be set out in the regulatory formula knowing that some fixed costs cannot be changed in the short run. Inefficient distributors will be asked to cut only a certain part of their costs in the first regulatory period that will last four years. Should a company be able to save more of its costs than required it may keep some of the resulting extra returns. This should encourage the network operators to take stronger productivity measures.

Non-Commercial Service Obligations in Austria

Until 1st October 2001 the electricity companies were obliged to supply all customers. Since the full liberalisation of the market all customers are able to choose their supplier as well as the suppliers are not subject to the obligation to contract. In contrast, the network operators have to connect - referring to the physical access to the network - all customers to their networks in principle (apart from some reasons, e.g. if the network access is economically not reasonable).

Besides offering the access to the networks, the electricity companies are obliged to run and maintain the networks and to ensure the operativeness of the network (balancing group system) in order to fulfil the organisational and technical tasks according to the ElWOG. Additionally, the network operators are also obliged to collect the ecological produced electricity. Central points of the market system are the equal treatment of all customers and the non-discriminatory access to the networks which includes the organisational as well as the financial area. All costs are covered by network charges.

During monopoly times it was only possible to disconnect customers from the network in case of non-payment. In the liberalised electricity market suppliers even do not have to contract with customers, e.g. if they are not attractive to suppliers. E-Control has only the possibility to allocate a customer who is supplied on a contractual basis in the area of balancing energy. However, the market rules provide a certain procedure and specified time limits a supplier has to obey before disconnecting a customer from the network (e.g. when the obligation to pay is not fulfilled).

New Electricity Directive of the European Union

The new Directive (2003/54/EU) was published in July 2003 and also deals with the above mentioned subject. The EU would like to ensure the protection and the rights of small and disadvantaged customers (e.g. customers in isolated areas). Hence the member states have to implement required measures to protect those customers in the electricity market.

The regulation should consider actions like settlement of electricity bills as well as general actions within the social security system. The member states are also able to determine a supplier of last resort. The Directive³ states:

“Member States shall ensure that all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million), enjoy universal service, that is the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices. To ensure the provision of universal service, Member States may appoint a supplier of last resort.”

In contrast to other EU member countries in Austria no model of supplier of last resort is implemented by now. E-Control has no legal mandate to allocate a customer to a supplier of last resort. However, it is considered to implement the model. At the present time subsidies for disadvantaged groups mainly concern the area of the social security system.

Beside the assignment of a customer it is conceivable to reduce the network charges for indigent customers and the costs have to be covered by the general public by a solidary contribution.

³ Directive 2003/54/EC

CANADA¹

Overview

Universal service, defined as affordable high-quality service accessible in all areas of the country, has long been one of the key objectives of Canada's telecommunications policy. With the opening of all telecommunications service markets to competition the regulatory regime has adapted over time to ensure universal service measures do not compromise competitive equity.

Historically, in a monopoly environment, these objectives were met by cross-subsidizing basic residential telephone service by revenues from long distance, business, and other services. In the new competitive environment, this system has been replaced by an explicit subsidy from a broad range of telecommunications service providers to basic residential telephone services specifically in high-cost areas. Subsidies are now calculated based on the incremental costs and are portable between incumbent and competitive local service providers in high-cost areas.

This paper presents Canada's telecommunications policy objectives in relation to universal service, traces the regulatory changes made to maintain universal service in an evolving competitive marketplace and concludes with a review of the current levels of competition.

Affordability/Accessibility

Affordability and accessibility have long been objectives of Canada's telecommunications policy. Those principles are expressed in section 7(b) of the 1993 *Telecommunications Act* that reads:

“To render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada.”

Canada has achieved some of the highest penetration rates in the world, as shown in the table below. These results have been achieved in spite of significant geographic obstacles and a low population density.

¹ Prepared by Industry Canada, Telecommunications Policy Branch.

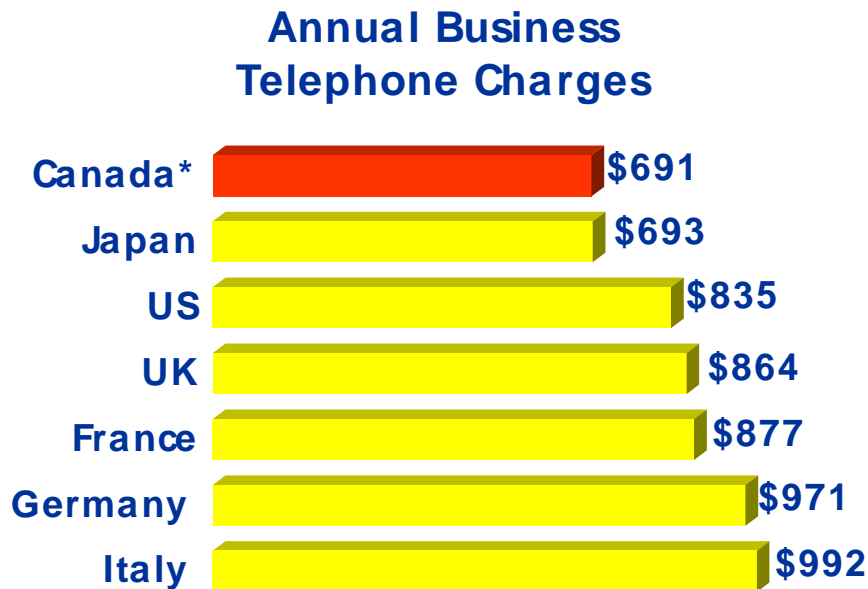
Figure 1.

NUMBER OF TELEPHONES AND TELEPHONE PENATRATION RATES	
Telephone penetration rates in 2000	97.7% of households had access to one network access line (NAS) in 2000. There were an estimated 20 million NAS.
Wireline Teledensity in 2002 (per 100 population)	63.4
INCREASE IN TELEPHONE PENETRATION RATE	
1986	98.1%
1996	98.7%
The rates for basic residential phone service have been increasing since 1996 through rate rebalancing and restructuring.	
2000	97.7%

Source: Statistics Canada, Catalogue Number 56-002 and 62-202

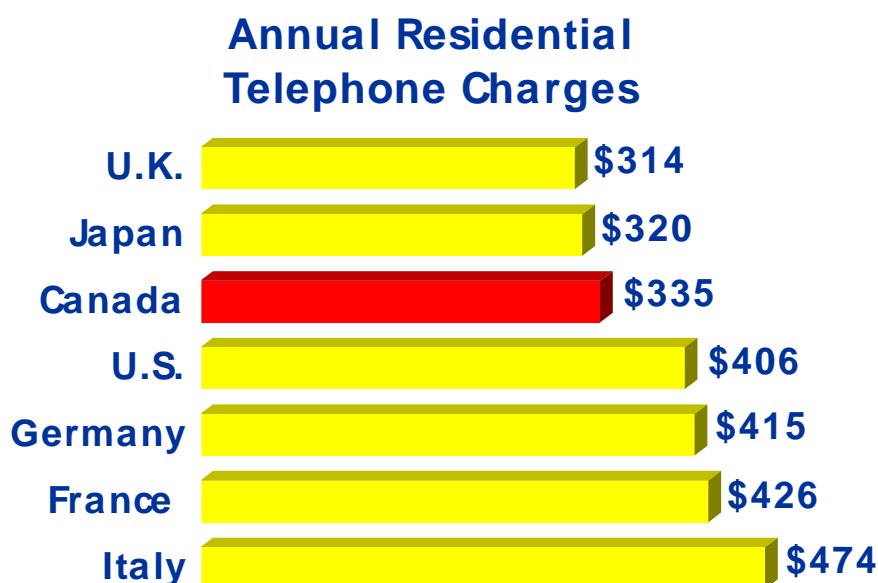
Canada has also been able to maintain low prices relative to other countries.

Figure 2A.



Source: OECD Communications Outlook, 2003 based on August 2002 data, in US \$ PPP

Figure 2 B



Source: OECD Communications Outlook, 2003 based on August 2002 data, in US \$ PPP

Evolution of Universal Service

Universal service objectives and funding in Canada have been continually modified over the past decade to adjust to a telecommunications services marketplace which has seen competition sequentially introduced to all sectors. Funding of basic telephone service has evolved from an internal subsidy model possible in a monopoly setting to a model in which subsidies are explicitly defined, available in high-cost serving areas only and calculated based on the incremental costs of providing service. The following discussion traces the steps and considerations involved in this evolution in Canada.

From Implicit to Explicit Subsidies

Prior to the introduction of competition, Canadian universal service objectives were met by offsetting low prices for basic local residential telephone service with high prices for long distance, business and optional services. With the introduction of competition in the long distance market in 1992 (Telecom Decision CRTC 92-12) it was recognized that the primary source of internal subsidies, long distance revenues, would be eroded by the incumbent's market share losses and competitive pricing pressures and would compromise the manner in which universal service was being promoted at the time. To maintain funding for low basic residential telephone service rates the Canadian Radio-television and Telecommunications Commission (CRTC) implemented an explicit funding mechanism that calculated the incumbent's revenue shortfall associated with providing local telecommunications services and recovered that shortfall from all long distance service providers, both incumbent and new entrant.

It is estimated that the 1993 shortfall across the major incumbent telephone companies' territories exceeded \$3 billion CDN, calculated on an embedded (historical) cost basis. It is important to note that embodied in the calculation of this shortfall are implicit subsidies from local business and optional

services. This was recovered by way of contribution charges that were calculated based on long distance traffic. However, in a desire to promote entry, competitors were afforded discounts off of the contribution charges starting at 25% in the first year and declining 5% in each subsequent year.

In 1993, contribution assessed on long distance traffic originated and terminated in Bell Canada's territory amounted to over \$0.10 per minute and was designed to offset a shortfall of approximately \$2 billion CDN. These amounts were calculated individually for each of the regional incumbents operating across Canada. The regime contemplated recalculating the shortfall and corresponding contribution charges annually.

Rate Rebalancing

In 1994, following a comprehensive review of the regulatory framework, the CRTC announced its plan to evolve the regulatory framework to accommodate competition with a view to promoting telecommunications infrastructure development and providing universal, affordable access to all, as provided in the 1993 *Act*. A fundamental component of this plan was to implement a program of rebalancing local residential telephone and long distance service rates in order to better align rates with the costs of providing service. In each of the next three years residential local rates were to increase; by \$2 per month for each of the first two years and, ultimately, up to \$3 in the third year depending on the particular incumbent.

Over the same period, the CRTC also embarked on a program of rationalizing residential local telephone service rates across urban and rural areas. This initiative addressed a historical anomaly whereby rates in rural and remote areas tended to be lower than rates in urban centres despite the costs of providing service generally being higher. In many of the incumbent's serving territories, rural rates were increased to levels in urban areas.

The overall effect of these two initiatives was to significantly reduce the amount of explicit subsidies funded via contribution fees.

New affordability measures

To address concerns that the rate rebalancing initiative could render local telephone service unaffordable for some, the CRTC launched public proceedings to examine this issue. In Telecom Decision CRTC 96-10 the CRTC concluded that taking the penetration rate (98%) as the best indicator of affordability, basic telephone service rates were at a level affordable for the vast majority of Canadians. To take into account rate increases, it established a program for monitoring penetration levels, to assess whether future action is required. It also found that the issue of high-cost service areas (remote/rural) could be subject to future review.

The proceeding revealed that the primary problems in gaining and maintaining access to the telecommunications network were associated with up-front connection charges and high long distance bills. Accordingly, the CRTC opted to provide consumers with better bill management tools. It ordered the incumbent telephone companies to introduce deferred payment plans for connection charges and to provide long-distance denial service to help those subscribers manage their telephone bills.

Subsidy Portability

With the introduction of the framework for local competition in 1997, the CRTC addressed the issue of competitive equity brought about by the long-standing subsidization of the incumbent's local residential service rates. The Commission concluded that subsidy portability would best address the issue. The CRTC determined that all local exchange carriers, whether new entrant or incumbent, would have

access to subsidies for those residential customers they service in high-cost serving areas. As well, the CRTC decided that residential subsidy requirements would be based on incumbent costs and revenues. It further mandated that, in a competitive environment, incumbents should still be required to meet the “obligation to serve.” This was the subject of an additional public inquiry in order to identify the best service approach in high-cost areas in a fully deregulated environment.

In the framework of this decision, the need to create a Central Fund was examined. The fund in principle was to be managed by a third party. However, to avoid delay in the allocation of subsidies to new market entrants, it was agreed that the Fund would be temporarily managed by the association representing the incumbents until a third party administrator was finally appointed.

High-Cost Service Areas

After a lengthy public review the CRTC considered the level of telecommunication services in Canada to be very high. Canada, in fact, was one of the best served countries in the world, except for its high-cost service areas (HCSAs), which in general include remote, rural regions and regions in the far north of the country.

Based on the record of this proceeding, it is estimated that over 18 million telephone lines are connected to the public switched telephone network. Over 99 per cent of these lines represent "single line" service. More than 97 per cent are connected to a digital switch, provide touch-tone telephone service, and can connect, via low speed data transmission, to the Internet without incurring long distance charges. Some telephone companies offer this level of service on 100 per cent of their lines. These figures indicate the success of Canadian telecommunications, which has grown steadily over the last century, in providing millions of Canadian residences and businesses with high quality service.

Existing service improvement programs will enhance the level of basic telephone service to about 90,000 more Canadians. The Commission notes that when these existing programs are complete, it is estimated that only 7,700 currently served customers will not have access to single line service. In addition, incumbent local carriers have identified, in total, approximately 13,000 residences and/or businesses, in over 700 locations, that will still not have any access to telephone service.

Source: Decision CRTC 99-16.

In order to meet the policy objectives set forth by section 7(b) of the 1993 *Telecommunications Act*, the CRTC attempted to balance priorities in order to improve service, maintain reasonable rates, and minimize subsidies in HCSAs which were clearly less well served than lower cost areas of the country. The following objectives were set for HCSAs:

- To extend service to the few areas still not served
- To improve the level of service in places where customers at present do not have access to the basic services Canadians in other areas have
- To maintain the level of service and ensure that existing levels do not negatively affect competition

Decision 99-16 included several key means of achieving those objectives, including the following:

Basic service objective:

A basic service objective was established for Incumbent Local Exchange Carriers (ILECs) to pursue. The language used in the objectives is technology-neutral, and the Commission recognized that specific elements of the objective might require review as changes occur in the level of services generally expected by Canadians. Specific services listed in the objective include:

- Local individual service, with touch-tone dialling, provided by a digital switch with capability to connect via low speed data transmission to the Internet at local rates
- Improved calling features, such as emergency call numbers, voice mail, etc.
- Access to operator services and directory assistance
- Access to the long distance network
- A copy of the local telephone directory

Obligation to serve:

To achieve reasonable access to telecommunication services for the whole population, Decision 99-16 maintained the obligation to serve for ILECs in the southern territories. This implies that ILECs must provide service at reasonable prices in their territories, on a non-discriminatory basis. The ILECs' obligation to serve and the terms on which service is extended are established in the ILECs' approved tariffs. The terms define what part of the cost is to be paid by the company, and what part is to be paid by the customer for the extension of service. Carriers were requested to propose rates in their plans giving customers the option of paying the charges for extension of service in reasonable instalments. It was considered reasonable to allow terms to vary from one company to another and from one territory to another.

Service improvement plans:

The CRTC decided to continue with service improvement plans (plans which had already been implemented successfully) in order to improve service to HCSAs. All ILECs had to submit multi-year service improvement plans to meet this objective throughout their service areas. The plan described the way ILECs intended to strengthen their networks, and where service had to be improved or extended to unserved areas. The CRTC considered that the least-cost technology was to be introduced and that larger areas or communities were to be served first, as well as permanent households before seasonal ones. The ILECs' service improvement programs were to be implemented by January 1, 2002.

With respect to the northernmost territory, which has its own special characteristics (vast spaces, adverse weather conditions, and scattered population representing less than 0.5% of the total population), it was decided that the operator serving that area should be treated differently from companies in the south of Canada. There is very low teledensity in the north. International service rates are much higher than in the south in order to generate the necessary revenues to provide local service in those territories.

In Decision CRTC 2000-746, November 30, 2000, the CRTC established the terms and conditions necessary to provide northern residents with a choice in long-distance suppliers as well as long-distance rates comparable to the rest of the country. Effective January 1, 2001 the long-distance market was opened to competition in the northern portion of the country served by Northwestel (NWTel), which includes the Northwest Territories, Yukon, Nunavut and northern British Columbia.

Consistent with its previous decisions on high-cost serving areas, the CRTC approved:

1. Extending single-line service to over 500 homes currently unserved;
2. Upgrading service to over 2,600 customers and eliminating mileage charges; and
3. NWTel's plan to upgrade its long-distance network to digital technology to improve the quality of both local and long-distance service.

In order to fund these service improvements and reduce long-distance rates, the Commission concluded that revenues were required from three sources:

1. A \$3 increase in the monthly telephone rates of NWTel residential customers, with a \$5 increase for business customers;
2. The introduction of a carrier access fee of 7 cents per minute on originating and terminating calls for long-distance competitors entering NWTel's territory; and
3. For the year 2001, the first year of the four-year service improvement program, a subsidy of approximately \$15 million from the contribution charges levied against telecommunications service providers in southern Canada. In subsequent years, the amount of the subsidy is to be reviewed and adjusted annually.

Revised Funding Mechanism

The contribution regime was modified again in 2000, when the CRTC issued Decision CRTC 2000-745 in which it changed the way it collects the subsidy provided to maintain basic residential telephone service in high-cost serving areas at affordable rates. Effective January 1, 2001, the CRTC adopted a revenue-based mechanism, under which Canadian telecommunications service providers must pay a percentage of their gross telecommunications revenues into a national fund. This new mechanism replaces the previous regime, under which long distance service providers alone paid into regional subsidy funds. The CRTC also determined that starting in 2002 the amount of subsidies available for serving high-cost areas would be determined using incremental rather than embedded costs. The new levy, initially set at 4.5 percent for 2001, was reduced to 1.3% in 2002 (in part a reflection of the move to calculating subsidies based on incremental rather than embedded costs, see below). It will be adjusted annually thereafter. The Commission exempted service providers with \$10 million or less in revenues from paying contribution and ruled that revenues from retail Internet services, retail paging, and terminal equipment are not contribution-eligible.

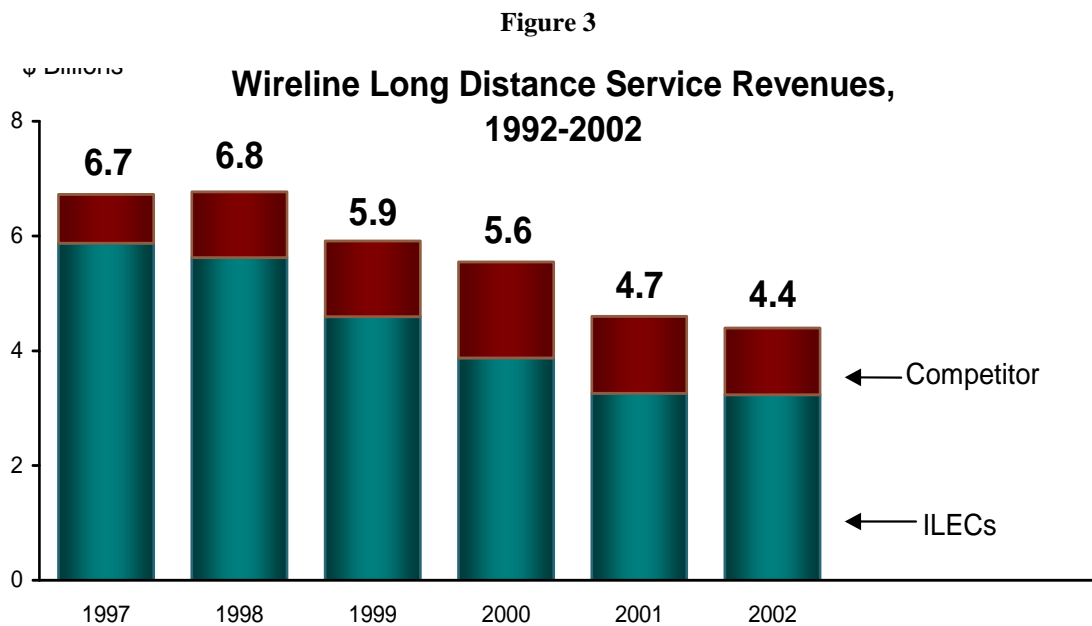
From Embedded to Incremental costing

In 2001, the CRTC approved the incremental costs with which the subsidies for serving high-cost areas would be calculated in Decision CRTC 2001-238. This included the adoption of a uniform approach to identifying high-cost serving areas in the territories of the major ILECs and a more consistent set of costing methodologies by which the ILECs are to determine the costs of residential primary exchange services. High-cost areas are divided into three distinctive categories for which costs and corresponding subsidies have been set: communities with less than 1500 lines; communities with 1500 and 8000 lines and an average loop length of more than 4 kilometres, and; remote communities (without year round road access). Under this regime, in 2002, a total of \$272 million in subsidies were collected and distributed.

Levels of Competition

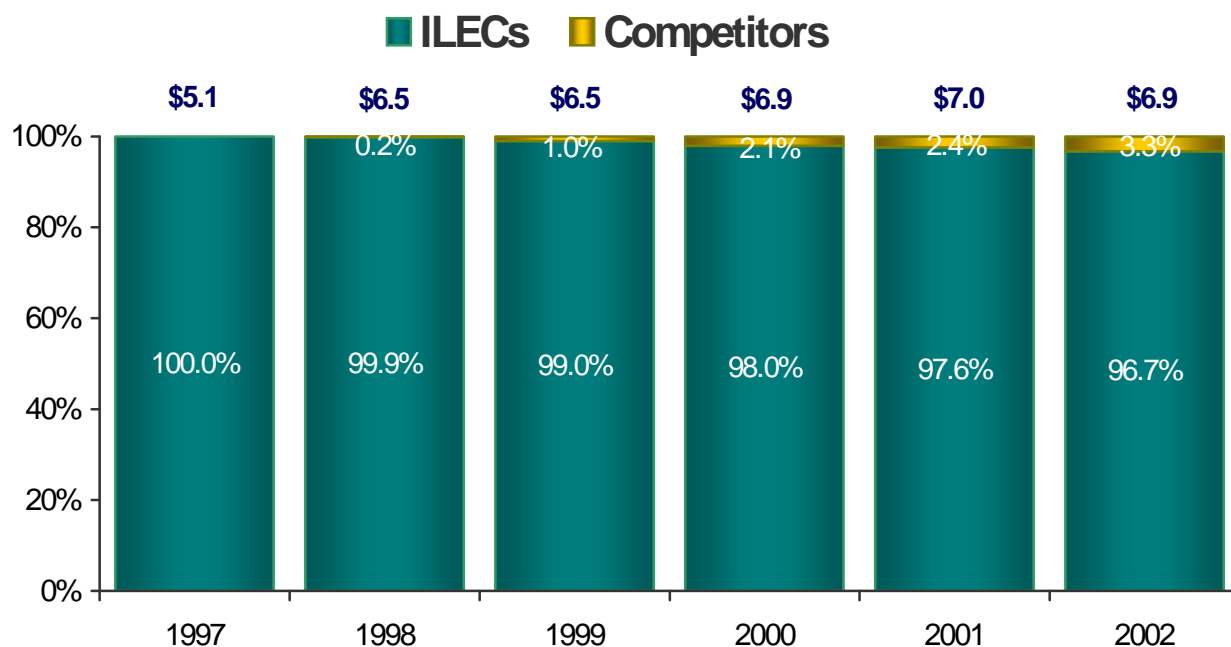
Canada opened markets to competition starting in the early 1990's. Competition was introduced by segments, beginning with long distance in 1992, followed by local service in 1997, and international services in 1998. Fostering an increased reliance on market forces is now considered a key principal of Canadian telecom policy.

However, competition has failed to achieve anticipated levels. The figures below show the market share that competitors have been able to acquire in long distance and local markets.



Source: Statistics Canada and Industry Canada estimates based on company annual reports.

Figure 4
Wireline Local Service Revenues*
1997-2002



*Billions of Dollars

Source: Statistics Canada and Industry Canada estimates based on company annual reports.

Competitors have achieved a greater share of the long distance market than of the local service market. Competitors as a whole have no doubt benefited from the broadening of the contribution collection base from only long distance providers to a broader segment of the telecom industry.

In the local service market, the battle lines of competition are not being drawn in rural and remote communities in Canada. Competition remains focused primarily in large urban centres and has targeted business rather than residential customers. So, while competitors are permitted to access the subsidy for service to high cost areas, this has yet to form a significant part of competitors' business plans.

CHINESE TAIPEI

I. Overview

There is a long list of universal service obligations in Chinese Taipei. Telecommunications, electricity, water, post, cable-TV, and certain kinds of transportation are the most significant ones, in addition to compulsory education and national health insurance. Most of the universal services that are featured by a network effect are provided by state-owned enterprises.

In preparing for this submission, the Fair Trade Commission (the FTC) consulted with government agencies responsible for the above-mentioned industries. After a preliminary review, the FTC decided to take the provision of USO in the telecommunications sector as an example to illustrate Chinese Taipei's designation and implementation of universal services in a newly-liberalized sector.

The telecommunications services were solely provided by the Directorate General of Telecommunications (the DGT), prior to the promulgation of the amendments to the Telecommunications Act on February 5, 1996. To facilitate the liberalization process, the government split the DGT into two entities, with the new DGT to be the regulator in the telecommunications market, and the state-owned enterprise Chungwha Telecom Co. as incumbent operator to run telecommunications businesses, ranging from data communications, mobile phones, to fixed networks.

The monopolized telecommunications services were liberalized in sequence: paging, mobile phones, satellite phones and mobile data communications in 1997, and fixed communications networks in 2000. By the end of 2002, there were six mobile phone operators and four fixed network operators, 23.9 million mobile phone accounts and 8.59 million Internet users.

II. Definition of USOs

Most common definitions of USOs may be sought through the definition of the telecommunications universal service: "the necessary (telecommunications) services of certain quality that may be fairly enjoyed by all nationals at a reasonable price." Universal service providers, whether at the national or regional levels, may not reject customer applications for service within its universal service area without due reason or authorization. Apart from the approved rates, universal service providers may not collect extra charges from customers.

Telecommunications Universal Service Obligations

The definition of telecommunications universal service is provided in Article 20 of the Telecommunications Act passed by the parliament.

The Ministry of Transportation and Communications published the Regulations on Telecommunications Universal Services on June 15, 2001 to specify the coverage of telecommunications universal services, which include "universal service for voice communications" and "universal service for data communications access."

Universal services for voice communications consist of communications services provided via the public telecommunications network, including: 1) uneconomic public payphone services, 2) telephone services in uneconomic areas, and 3) free coastal radio maritime emergency and safety communications services.

- a) “Uneconomic public payphone” here means a public payphone (hereafter “payphone”) that has been recognized by the DGT for which, under normal business conditions or without any subsidy, the avoidable cost that a universal service provider may incur for the provision of a single payphone service exceeds the revenue forgone.
- b) “Uneconomic area” refers to a single local telephone exchange office’s service area (hereafter “local exchange area”) that has been recognized by the DGT where the avoidable cost incurred by a universal service provider for the provision of telephone service in a remote area exceeds the revenue forgone.
- c) A “remote area” here means a town or village with a population density of less than one-fifth of the average national population density, or an outlying island at least 7.5 km away from the location of any local government.

Universal services for telecommunications are provided through fixed line phone service rather than through mobile phones. Universal directory services are included in telephone service in uneconomic areas.

Universal services for data communications access refers to operators who provide primary and high schools and public libraries with local data communications access services necessary for Internet access at discounted rates. The “schools” include all schools approved by the competent authorities, and “public libraries” refer to libraries established by all levels of government.

III. Decision to Make a Service a USO

While Chinese Taipei is on the way towards liberalizing its telecommunications market, the fundamental telecommunications rights have not been neglected. With the coming of the information age, advantaged telecommunications services user groups with better resources could easily access advanced communications technology and information to further strengthen their benefits and wealth, so as to enlarge the gap between themselves and the disadvantaged user groups. This trend is normally described as the “Digital Divide.”

To minimize the Digital Divide, protect and enhance the fundamental telecommunications rights of citizens, and allow all citizens to have access to certain indispensable telecommunications services, equitably, with a reasonable level of quality, at reasonable rates, and in line with the national policy of creating a balanced and justified information society, the telecommunications universal service regime has been established in accordance with the 1999 amendments to the Telecommunications Act.

Under-provision

Prior to the liberalization of telecommunications services, universal service, mainly for local and long-distance calls, was provided with no regard to costs by the former DGT, and the losses were cross-subsidized by other businesses, such as those dealing with international calls.

To ensure fair competition, the Telecommunications Act requires that incumbent and other telecommunications enterprises with telecommunications line facilities and equipment in order to provide telecommunications services shall, in accordance with their operating items, establish separate accounting

systems to calculate profits and losses and may not employ cross-subsidies. Therefore, the costs and prices of telecommunication services need to become more reasonable, and cross-subsidies will gradually be eliminated.

Under an open and competitive environment, costs and profits are the most important areas of concern to telecommunications enterprises. Enterprises lacking internal or outside subsidies and under pressure with respect to investment performance and competitiveness may be unwilling to provide loss-making telecommunications services, or may have to charge more for services to remote areas or certain user groups in order to compensate for extra or low-return expenses.

Desired User Groups

Current policies to reduce Digital Divide and to ensure a sound telecommunications universal services regime include:

- a) speeding up the implementation of the telecommunications universal service obligation via the Fund for Telecommunications Universal Services;
- b) increasing the telecommunications network infrastructure to balance the urban-suburb difference;
- c) reducing the schools and libraries' burden to access the Internet via universal services for data communications access; and
- d) gradually implementing universal services for data communications access to local communities to enable all citizens to access broadband at a reasonable rate.

In 2001, the MOTC identified uneconomic public payphone service, telephone service in uneconomic areas and free coastal radio maritime emergency and safety communications service as universal services. These services generate little incentive for telecommunications enterprises to provide under normal business conditions and therefore target the disadvantaged user groups that might not be able to receive the service or might have to pay a higher rate without USOs.

To achieve the goal of building an information society, universal service for data communications access is provided to reduce the burden of the schools and public libraries to access the Internet and to facilitate academic activities.

IV. Selection of Universal Service Provider

The ways of selecting universal service providers for voice communications and data communications access are very different and are explained as follows:

Voice communications

Incumbents shall, by June 1 of the year prior to the fiscal year in which universal service is implemented (hereafter "implementation year"), submit the Universal Service Annual Implementation Plan (hereafter "implementation plan") aiming at an implementation unit published by the DGT, and apply to the DGT for accreditation as universal service providers for uneconomic public payphone and uneconomic area telephone services.

Other local network operators can also apply through the aforementioned procedures to become universal service providers of uneconomic area telephone service. Implementation plans submitted shall be published by the DGT no later than July 1 of the year prior to the implementation year. Local network

operators can then improve their implementation plans and submit them again no later than August 1 of the said year, and apply for accreditation as a universal service provider for uneconomic area telephone service.

Implementation plans shall contain the following details:

- a) Service penetration and service quality benchmarks prior to the implementation of universal service for the implementation year;
- b) Predictions for the maintenance or improvement of service penetration and quality benchmarks for uneconomic area telephone service after the implementation of universal service for the implementation year;
- c) Implementation solutions and tariffs for universal service for the implementation year;
- d) Estimated net universal service costs for the implementation year, and the expected amount of subsidies required;
- e) Detailed calculations on the aforementioned net costs;

The DGT shall compare the net universal service costs, requested subsidy amounts, the predicted improvements in service penetration and quality benchmarks in its assessments of implementation plans, shall consider the actual operating abilities of the applicants, and shall then choose the best implementation plans for submission to the MOTC for approval.

Incumbents shall continue to provide nationally the free coastal radio maritime emergency and safety communications service, unless otherwise designated by the MOTC.

Data communications

Universal service for data communications access refers to operators who provide primary and high schools and public libraries local data communications access services necessary for Internet access at discount rates. The said schools and public libraries desiring Internet access could choose any legal operator themselves for the provision of such universal service for data communications access. There is no specific rule set for selecting the providers.

V. Separation of Price from Cost

In the fixed communications network industry, the cost of building a connection to the customer is similar to providing the line that connects to a customer's location. The cost of building a connection in rural areas is usually higher than that in the urban areas. However, according to the Telecommunications Act, to protect the fundamental telecommunications rights, the citizens shall enjoy necessary telecommunications services at a reasonable price. Even though the cost of building a connection in rural areas is higher than that in the urban areas, the Telecommunications Enterprises Universal Service Fund should subsidize the service providers in uneconomic areas so that the nationals, regardless of whether they live in suburban or urban areas, can enjoy the same rate.

The construction work is used to incur social cost, and thus customers are not allowed to seek a builder themselves. The MOTC requires the fixed network operators to be responsible for the construction of the infrastructure work.

VI. Benefits to Providers of Universal Services

The universal service providers' net costs of providing universal service are shared by other telecommunications enterprises. Universal service providers shall submit universal service subsidy applications and related information for applications to the DGT for subsidies for the implementation year no later than May 1 of the year after the implementation year. The DGT shall publish applications received for universal services subsidies, assess them and publish the results no later than August 15 of the year after the implementation year.

In addition to receiving partial reimbursement of costs, universal service providers may acquire benefits by enlarging their telecommunications network and enhancing their business image. These benefits are difficult to quantify.

VII. Costs calculated for USO provision

According to the Regulations on Telecommunications Universal Service, the "net universal service costs" for uneconomic area telephone service and uneconomic public payphone service are "the avoidable costs incurred by universal service providers' provision of service minus the revenue foregone."

Uneconomic Area Telephone Service

For uneconomic area telephone service, the "avoidable costs" shall be calculated in accordance with the formula stated in Appendix 1.

The "revenue foregone" in the case of an uneconomic area telephone service shall be the total revenue as listed below as collected from the provision of telephone and other related services in a single local exchange area of the remote area:

- a) Monthly rental revenue.
- b) Communications revenue.
- c) Installation and connection revenue.
- d) Access charges.
- e) Network interconnection charges.
- f) Rentals from leased circuits or other networking equipment.
- g) Other service revenue.
- h) Other non-operating revenue.

If a single local telephone exchange area is located in both remote and non-remote areas, the universal service provider shall, in its calculations of the total net universal service costs for uneconomic area telephone service, include the said single local exchange area's net universal service costs.

Uneconomic Public Payphone Service

The "avoidable costs" of uneconomic public payphone service shall be calculated in accordance with the formula stated in Appendix 2.

The “revenue foregone” for an uneconomic public payphone service shall be the service income as derived from a single public payphone booth under the condition that the provider shall receive subsidies for no more than two uneconomic public payphone booths within a radius of one hundred meters. The DGT owns the right to adjust this rule in accordance with the real situation.

Coastal Radio Maritime Emergency and Safety Communications

The net universal service costs for coastal radio maritime emergency and safety communications shall be the number of maritime emergency and safety communications as a proportion of the total number of coastal radio communications, multiplied by the total avoidable costs of coastal radio service. The total avoidable costs shall be calculated from the formula as stated in Appendix 3.

Data Communications Access

The DGT shall, no later than December 1 of the year prior to the implementation year, set forth the subsidy available for the provision of universal service for data communications access. The subsidy shall not exceed the monthly rental fees charged for local data access lines.

VIII. Financing

Prior to the liberalization in the telecommunications sector, the domestic telecommunications industry was monopolized by the former DGT, and telecommunications universal services were provided with no regard to costs by the former DGT. The losses, normally happening in the local call business, were cross-subsidized by other businesses, such as international calls.

To prevent the incumbent from misusing its market power and to hinder fair competition once the relevant market was open to competition, the new Telecommunications Act requires that a Type I telecommunications enterprise shall, in accordance with its operating items, establish separate accounting systems to calculate profits and losses and may not employ cross-subsidies. The same rule applies to Type I telecommunications enterprises that also operate a Type II telecommunication enterprise or any other non-telecommunication business. Therefore, internal financing within the telecommunications universal service providers will be against the Telecommunications Act.

The Telecommunications Act also requires that a fund dedicated to the telecommunications universal services shall be established for achieving the goal of telecommunications universal services. The losses and necessary management expenses arising from the universal services shall be shared and paid out to the said fund by the telecommunications enterprises designated by the MOTC.

The proportion that an individual contributing party shall contribute towards the total universal service charges shall be calculated from the proportion of revenue generated by the individual contributing party against the total revenue generated by all contributing parties, multiplied by the total universal service charges. The total universal service charges include all subsidy amounts paid to universal service providers and necessary administrative costs.

The revenue generated by an individual contributing party shall be calculated in the following manner:

- a) Type 1 Telecommunications Enterprise: the Type 1 telecommunications enterprise revenue as reported on corporate income tax forms for the implementation year, minus the revenue foregone for various universal service categories.

- b) Type 2 Telecommunications Enterprise: the Type 2 telecommunicates enterprise revenue of certain operating items which need to contribute to universal service, as reported on corporate income tax forms for the implementation year.

IX. Role of the Competition Authority

To minimize USO's impact on competition, the competition authorities should prevent incumbents from hindering potential competitors or excluding competitors via the provision of USOs. Incumbents often object to the liberalization based on the argument that new entrants will jeopardize their internal cross-subsidization which is indispensable to them in the provision of USOs. There are also chances for incumbents to raise the rivals' costs when they request that the new entrants contribute to the deficit resulting from the provision of USOs, so as to hinder new entrants' market access.

The FTC believes that sound USOs should provide incentives for incumbents and new entrants to formulate thoughtful investment policies, effectively access the market, and prevent the cream-skimming effect, without damaging the policy goals of USOs. In addition, the provisions of USOs should follow the competitive neutrality principle to prevent universal service providers from strengthening or losing their competitive advantage. The competition authorities should have a chance to provide input in the process of designating USOs, based on their enforcement experience.

X. Web Sites

Web sites of the DGT and the MOTC are as follows:

- ✧ the DGT: <http://www.dgt.gov.tw/flash/index.shtml>
- ✧ the Ministry of Transportation and Communications: <http://www.motc.gov.tw/welcome.htm>

APPENDIX 1:

Formula for the calculation of avoidable costs for uneconomic area telephone service

The avoidable costs for uneconomic area telephone service shall include the annual avoidable operating costs and avoidable capital costs incurred by the directly-utilized assets located in a local exchange area in a remote area.

1. Avoidable capital costs: the capital costs associated with the avoidable fixed assets and avoidable operating fund required for the operations of the local exchange area.

1. Avoidable fixed assets

1. Telecommunications machinery and line equipment (book value).
2. Land, buildings and other equipment related to the aforementioned telecommunications machinery.

2. Avoidable operating fund

Operating fund = amount of cash expenses + amount of funding for reserve material

Amount of cash expenses = [operating expenses + non-operating expenses - (depreciation + loss of foreign exchange rate changes + other non-cash expenses)] / 365 * (days of working capital turnover).

Amount of funding for reserve material: (annual material costs / 12) * number of months on average in which the material is stored

3. Avoidable capital costs = [(net value of the fixed assets at the beginning of the implementation year + net value of the fixed assets at the end of the implementation year) / 2 + operating fund] * capital costs percentage / (1 - corporate income tax rate)

2. Avoidable operating costs

This refers to the necessary costs associated with the normal maintenance of the aforementioned telecommunications equipment and assets, and includes:

1. Direct costs associated with the local exchange area:

1. Depreciation costs for the fixed assets employed in operations (excludes land)
2. Maintenance costs associated with the normal operations of the facilities and lines in the local exchange area.

3. Maintenance costs and labor costs associated with equipment installation and maintenance, line checking, repairs to users' equipment, and failure reporting center.
2. Network supporting costs:
 1. Share of the quality control costs associated with network traffic, materials purchasing costs and inventory control management costs.
 2. Personnel and related equipment costs associated with the planning and design of universal service.
3. Operating, billing and collection expenses:
 1. Charges associated with the processing of installations, removals and other changes of services.
 2. Billing management and collection charges.

APPENDIX 2:

Formula for the calculation of avoidable costs for uneconomic public payphone service

The avoidable costs for uneconomic public payphone service shall be the actual avoidable costs associated with a single public payphone, or the average avoidable costs of all the public payphones in a local exchange area.

Avoidable costs include the annual avoidable operating costs and avoidable capital costs incurred by the directly-utilized assets.

1. Avoidable capital costs

Avoidable capital costs = [(net value of the public payphone terminals in operation at the beginning of implementation year + net value of the public payphone terminals in operation at the end of implementation year) / 2 + operating fund] * capital costs percentage / (1 - corporate income tax rate)

The costs of public payphone terminals shall include public payphone sets, booths (or wall-mounted screens) and installation costs.

Definitions of “avoidable operating fund” are the same as that recorded in Appendix 1.

2. Avoidable operating costs

Avoidable operating costs include:

1. Depreciation costs associated with public payphone terminals.
2. Maintenance costs for switches and lines for public payphones.
3. Maintenance costs for public payphones.
4. Production and sale costs associated with telephone cards.
5. Collection and coin counting costs.
6. Processing charges associated with accounts for public payphones.

APPENDIX 3:

Formula for the calculation of avoidable costs for coastal radio maritime emergency and safety communications service

The avoidable costs for coastal radio maritime emergency and safety communications service = the avoidable costs associated with coastal radio services x [the number of coastal radio maritime emergency and safety communications / (the number of coastal radio maritime emergency and safety communications + the number of coastal radio public communications)]

The avoidable costs for coastal radio service shall include the annual avoidable operating costs and avoidable capital costs for the directly-utilized assets for coastal radio stations.

1. Avoidable capital costs: the capital costs associated with the avoidable fixed assets and avoidable operating fund required by the operations of the coastal radio stations.
 1. Avoidable fixed assets.
 1. Telecommunications machinery and antenna facilities located in coastal radio stations (book value).
 2. Land, buildings and other equipment associated with the aforementioned coastal radio stations.
 2. Definitions of "avoidable operating fund" are the same as those recorded in Appendix 1.
 3. Avoidable capital costs = [(net value of the fixed assets at the beginning of implementation year + net value of the fixed assets at the end of implementation year) / 2 + operating fund] * capital costs percentage / (1- corporate income tax rate)
2. Avoidable operating costs

This refers to the necessary costs associated with the normal operations of the aforementioned telecommunications equipment and assets located at coastal radio stations, and includes:

1. Depreciation costs for the fixed assets employed in operations (excludes land).
2. Maintenance costs, trunk costs and connection fees associated with the normal operations of telecommunications machinery and antenna equipment located at coastal radio stations.
3. Costs associated with communications service personnel.
4. Billing processing and collection charges.

Note:

- (1) The capital costs percentage used in the formulae in appendices 1, 2 and 3 should be the basic lending rate used by the Bank of Taiwan at that time; other variables, such as the days of working capital turnover or the average storage times for materials, should be calculated in accordance with relevant rules set forth by the MOTC; if not regulated, universal service providers should provide information on such variables at the time of the submission of the implementation plans for assessment by the DGT.
- (2) In the formulae for calculating avoidable capital costs in appendices 1, 2 and 3, the net fixed asset value is calculated from the average of the net values of the fixed assets at the beginning and the end of the implementation year. However, if there are large, significant month-to-month changes in the net value of the fixed assets in that implementation year, the weighted average of the net fixed asset values for the twelve months in the implementation year should be used.

CZECH REPUBLIC

The contribution has been elaborated by the Office for the Protection of Competition (hereinafter the Office) on the basis of the information and background materials submitted by the relevant regulatory institutions: the Czech Telecommunications Office (hereinafter CTO) for the telecommunications sector, the Ministry of Informatics for postal services and information on new Act on Electronic Communications, the Energy Regulatory Office (hereinafter ERO) for the energy sector and the Ministry of Transport for the transport sector.

The contribution deals with the issue of universal service obligations (USO) in sectors of telecommunications and energy and reflects also planned amendments to the legislation in these areas (planned adoption of the Act on Electronic Communications and amendment to the Energy Act). The material also partly touches on some topics in the remaining areas, where USOs are traditionally imposed, i.e. in postal and transport sectors. Finally, the contribution deals with the role of the competition authority with respect to the formulation of universal service obligations.

Universal service obligations in the Czech Republic

As regards individual sectors in the Czech Republic, services subject to the universal service obligation include:

In telecommunications:

- public telephone service, including facsimile transmission and data transmission, provided via public telecommunication networks,
- operator services,
- free-of-charge and non-stop access of users, without using coins or cards, to emergency numbers,
- information service on subscriber telephone numbers of a public telephone service, and access to these directories,
- regular publishing of telephone directories of subscriber numbers of a public telephone service,
- public pay-phone service,
- discounts for handicapped persons.

In postal sector:

- postal items up to 2 kg,
- postal parcels up to 15 kg

- services for registered and insured items,
- literature for the blind,
- money orders,
(all above mentioned services both national and cross-border), and
- so-called M bags (only cross-border),

In transport:

In the transport sector, the USO is related to the term of *transport services for the territory*. In **the railway transport**, the basic transport service is procured by regional authorities (regional governments) in the framework of their so-called transferred jurisdiction by means of concluding agreements on public service obligation with the carriers selected by tenders. **In the road transport**, the transport office has *ex lege* obligation to procure basic transport service primarily in the regular licence proceeding with the use of bound licence institute and by approving timetables. Only in case these standard methods do not secure provision of transport services, agreements on public service obligation are concluded. The public service obligation is in both cases connected with the reimbursement of the verifiable loss incurred to the carrier due to the fulfilment of the obligation.

Definition of universal service obligation

There is no single definition of universal service valid generally for all relevant sectors in the Czech Republic.

In **telecommunications sector**, the definition given by the Telecommunications Act¹ is applicable: Universal service shall be deemed to mean a minimum set of services of determined quality available to all users throughout the whole territory at an affordable price.

The **Act on Postal Services**² uses the term “basic services“ which comprises postal services and international services the scope of which is the delivery of communications in written form and other items up to the determined weight or delivery of remitted money amount; the providing of such services shall be ensured in the public interest all over the territory of the state.

The current **Energy Act**³ does not operate with the term ‘universal service’. However, the term universal service has already been used in the preparations for drafting an amendment to the Energy Act, under which the universal service means *supply of electricity or gas and related services at a quality and for a price set by the Energy Regulatory Office, which the appointed supplier is obligated to provide to every household and small business that requests so or that does not use the right to choose its electricity supplier*.

¹ Act No. 151/2000 Coll., on Telecommunications and on Amendments to Other Acts, as amended

² Act No. 29/2000 Coll., on Postal Services, as amended

³ Act No. 458/2000, on the Conditions of Business and State Administration in the Energy Industries and Changes to Certain Laws, as amended

Universal service obligation in telecommunications

The **Ministry of Informatics** has the responsibility for formulation of national policy in telecommunications. The **Czech Telecommunications Office** is the sector regulatory body. The current range of universal service obligation is provided by the Telecommunications Act adopted by the Parliament of the Czech Republic. The Ministry of Informatics is currently drafting a new **Act on Electronic Communications** that will replace existing legislation in this area. Within its framework, the matter of USO will be addressed as well (see later).

As far as the **relation between universal service obligation and liberalisation** is concerned, the CTO's experience is related mainly to the impact of the implementation of obligation to provide USO on the evolution of prices for provision of public telephone service under conditions of telecommunication market liberalisation. The CTO sets the maximum prices for public telephone service provided within the framework of USO. The alternative operators, if they want to compete effectively with the dominant incumbent, therefore set their own prices below the set maximum price. Regulated prices of telephone service of the USO provider constitute a measure of effectiveness for new market players. There is no specific administrative barrier for market entry in relation to provision of USO.

It is not foreseen that the **privatisation of the provider** entrusted with the USO provision will have any impact on USO. USO is specified by law regardless whether the State has a share in the provider or whether the provider is completely privately owned.

Individual services that are covered by the USO are defined in the Telecommunications Act (the list of them was stated above). **Current definitions are so general** that the universal service may be provided either by a fixed line operator, or even by a mobile operator. Under the Telecommunications Act, any fixed or mobile operator may submit an application to the CTO for provision of universal service.

Under the current legislation it is the CTO who appoints the universal service provider. The CTO is authorised by the Telecommunications Act to impose the USO on a holder of telecommunication licence for provision of public telephone service via fixed telecommunication network who has a significant market share. The CTO has exercised this power and appointed ČESKÝ TELECOM, that has a significant market share in telephone services, as the universal service provider at the national level.

Even though the initial costs of connection installation differ in various parts of the country (especially in rural and urban areas), **the price for building a telecommunication connection** is within the same price plan **uniform** through the whole state and is based on the average costs for building a connection. The possibility to build connections is not limited by the law. Any operator holding a licence has the opportunity to install subscriber lines. However, only the universal service provider currently offers building of connection to households. As for the business customers, there is wider choice among providers of this service. Rural customers pay a uniform price for connection that is based on average costs calculated for the whole country. The price varies between household and commercial lines, depending on individual prices plans – packages.

The relevant USO provider collects revenue for service provided within the framework of USO. Some services are provided free of charge, some are provided with a discount (e.g. line connection and monthly flat rates for the use of network by handicapped persons). By providing services free of charge or with some discounts, the provider incurs a loss that is partially covered by contributions from other telecommunication licence holders that are collected at the **universal service account** administered by the CTO. Therefore, the co-financing scheme applies and contributions of individual licence holders are set out in relation to their market share. Details on calculation of contributions are specified by the implementing decree.

The USO costs are calculated as historical, actually recorded in accounts. The unjustified costs, i.e. the costs that do not relate to the services provided or that indicate inefficiency, are excluded from the calculation. The quality of universal service is pre-defined in the implementing decree.

Demonstrable loss from the USO provision shall be deemed to mean the difference between economically-justified expenditure, including reasonable profits, paid out by telecommunications licence holders in order to fulfil the obligation to provide universal service, which would not have arisen had the universal service providers not had this obligation, and earnings and revenues achieved by telecommunications licence holders from fulfilling the obligation to provide universal service. It follows from the above-mentioned facts that according to the current legislation only the material benefits arising from provision of universal service are taken into account. According to the planned Act on Electronic Communications, the non-material benefits arising from provision of universal service shall be considered as well (see later).

The planned new legislative framework for universal service obligations in telecommunications in the Czech Republic

The Ministry of Informatics, which is responsible for implementation of the European Union legislation concerning telecommunications into the Czech law, is currently preparing a draft of new **Act on Electronic Communications** that will replace the current Telecommunications Act. The new law will be technologically neutral and its scope will be therefore wider.

The universal service is one of the substantial parts of the new Act implementing the Directive No. 2002/22/EC of the European Parliament and of the Council, on universal service and users' right relating to electronic communications networks and services (Universal Service Directive).

The USO is introduced into the new law in order to ensure that all reasonable requests for connection from a fixed location to the public telephone network and for access to publicly available telephone services from a fixed location are satisfied. This provision enables the regulator to impose the obligation not only on the dominant fixed operator but also on other subjects if the technical conditions are met in relation to the area of the whole state or even to local area (**the principle of technological neutrality**). The connection must enable functional Internet access, which is one of the main reasons for introducing USO in electronic communications. The new approach **brings more rights to persons with low income or users with special social needs** by introducing the obligation for designated undertakings to provide special tariffs options or packages for this group of consumers. These groups of consumers will have special tariff options or packages, which will differ from those provided under commercial conditions. The Governmental Decree will stipulate the beneficiaries and the Ministry of Informatics expects intensive discussion with these groups of consumers.

The providers are expected to keep struggling for attractive users and USO will concern only those users that are outside the interest of the commercial providers of the electronic communication services. The competition in the market is supported also by *carrier selection* and *carrier pre-selection*, as well as by the possibility to transfer a part of USO to other providers of telecommunications services.

According to the draft Act on Electronic Communications, providers of the universal service (or its parts) will be **selected by a tender**. Only in case that no subject is interested in providing universal service, the CTO will have the **power to place the respective obligation** (USO) to a provider that meets the requirements for provision of universal service.

The main purpose of the new regulation is to reduce the net costs of the universal service to the minimum by the mechanism of their calculation including the calculation of any market benefits

gained in relation with the provision of the universal service. According to the Ministry of Informatics, the designed system of USO should not distort competition in the market. On the contrary, one of the main pillars of the planned law is **the gradual transition from *ex ante* sector specific regulation to *ex post* regulation**, based on the application of general competition rules. For there should be a clear funding mechanism for USO, the existence of the universal service account is foreseen. The account will collect the financial resources from contributions of operators of electronic communications networks and providers of electronic communications services, including the provider of the universal service, except of those who do not reach a certain level of turnover per year. The range of services that constitute a part of the USO is clearly stated in the Directive No. 2002/22/EC.

Universal service in energy sector

As mentioned above, the current Energy Act does not operate with the term “universal service”. However, **the obligation to provide universal service** results from Directive No. 2003/54/EC of the European Parliament and of the Council, concerning common rules for the internal market in electricity, providing in Article 3, paragraph 3: “Member States shall ensure that all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million), enjoy universal service, that is the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices.” Member States are under the same obligation to provide for universal service also in the gas industry under Directive 2003/55/EC of the European Parliament and of the Council concerning common rules for the internal market in natural gas.

The planned amendment to the Energy Act envisages the universal service obligation to aim at providing for electricity and gas supplies to the final consumers who will not use the right to choose their electricity/gas supplier or who will request electricity/gas supplies through universal service. However, not all final consumers will have the right to electricity/gas supplies provided through the universal service: only households and small businesses that employ up to 50 employees and have an annual electricity consumption of up to 10 MWh, if they are connected to the low-tension (low voltage) network; in the case of gas, the same number of employees applies, together with a maximum annual gas consumption of up to 630,000 kWh.

When deciding that these particular services will become part of a universal service, it was necessary to take into account, that without the existence of the universal service obligation problems might occur with supplying the customers who might face difficulties looking for a suitable electricity/gas supplier. In the current situation, when the Czech electricity market is open only for the largest customers and the gas market is not open at all, it is not possible to give a clear-cut answer to the question whether the services in question would be provided inadequately or at a low level of quality or whether any other failures in energy supplies would emerge if the universal service obligation did not exist. Providing for universal service obligations in the amendment to the Energy Act is mainly a precautionary step.

As far as the **financing** is concerned, the planned legislation on universal service does not **envisage any subsidies** to universal service providers because universal service rules are not **intended to grant any price advantages to the customers who use the universal service**; such rules are only intended to ensure that the service is provided when the affected customers have been unable to obtain a different supplier, for whatever reason. However, this does not mean that the universal service provider cannot incur a loss from the provision of the universal service. In such a case, however, the universal service provider shall have the right to receive compensation for the loss it has demonstrably incurred in the provision of universal service. The proposed amendment to the Energy Act envisages the principle of compensating for demonstrable losses, but not from any special fund or account to which other businesses

operating in the energy sector are contributing, but through the setting of the regulated prices for such service for the following year.

The **price of the universal service obligation** should be calculated as to cover all the justifiable costs incurred by the universal service provider plus reasonable profit, while it is expected that this price will be higher than the market price. The above is based on the assumption that supplies at a specified quality should be assured for the user of the universal service, but that user should not be favoured in terms of pricing. The USO will therefore be fully financed by the users of this service. The purpose of providing universal service is not to grant any pricing preferences to a selected group of customers but to provide protection to those final customers who generally require a higher degree of protection by the State. And this protection consists in the right to receive energies at the specified level of quality and for regulated prices. If these customers elect to use the right to choose their supplier, they may even obtain a lower price on the market. In case they do not use this right or if they do not find their supplier on their own for various reasons, they will use the protection consisting in the right to universal service.

The ERO will set the USO price on the basis of information received from universal service providers, and the price of the universal service provided in different regions by different providers may vary. The universal service provider will not receive any explicit payment for providing this service, nor will it be a beneficiary of any other prerogatives for providing this service.

The proposed legislation on universal service in the energy sector will not establish any **special barriers to entry** and will not exclude competitors from that part of the market for which universal service is stipulated. Competition is mainly manifested at the moment of selecting a certain supplier who will then provide this service. The distribution system operator can select any electricity/gas trade licence holder as a universal service provider. Since the universal service provider is to be selected by the respective distribution system operator, i.e. at the regional level, this approach helps to increase the number of the potential service providers. The choice is limited in time (at present, the draft amendment contains supplier choice for five years).

In the Czech Republic, there is **no single uniform price for building new electricity connection to the user, but there is a single method**, which is defined in the decrees issued by the Energy Regulatory Office defining the method of determining the amount of the customer's contribution to the supplier's justifiable costs related to building the connection and providing the required energy supplies. According to the Energy Act, customers (both eligible and protected customers) are obligated to contribute to the justifiable costs incurred by the respective operator of the transmission or distribution system in relation to connecting these customers and providing the required energy supplies to the extent set by the implementing decree. The method varies as concerns the eligible and protected customers; there are no exemptions from its application, i.e. the rural customers, for example, are not provided beneficial tariffs.

A customer may select the contractor that will build the connection. Anybody may build connections subject to respecting the conditions laid down in the Energy Act, the implementing decrees, the Transmission System Code and the Distribution Systems Code.

In the Czech Republic, **a single uniform nationwide price does not exist.** Each distribution system operator applies individualised tariffs that take into account its costs. The price at which electricity is supplied to protected customers is regulated by the ERO. The maximum price for electricity supplies to protected customers is set individually for each of the regional operators of distribution systems. Since prices are set as maximum, i.e. the highest permissible prices, further differentiation of the prices for electricity supplies is only possible when the respective electricity supplier decides to offer electricity at a price lower than the maximum price. The price of electricity supplies is not regulated and is agreed between the supplier and purchaser.

In the Czech Republic, **distributed production of electricity** is supported by a tariff, which applies globally and which is paid for each MWh delivered to the distributor's network. The tariff is graded by voltage levels.

Brief description of universal service in postal services

Universal service in postal services, its definition, content and conditions for provision is defined in the **Act on Postal Services** and implementing decrees. Regulatory body, that supervises universal service provision in this sector, is the **Ministry of Informatics**.

The universal service obligation covers those postal services, which would not be ensured at the required accessibility and quality as a simple impact of the market. For this reason it is also possible to change the scope of universal services.

Provision of universal services is based on a model where the sole dominant operator is required to ensure these services and for that purpose, a part of the market is reserved to him. The extent of this reservation results from the Directive 97/67/EC of the European Parliament and of the Council on common rules for the development of the internal market of Community postal services and the improvement of quality of service and will be reduced according to its amendment made by the Directive 2002/39/EC. For financing of universal services no model of compensation fund or general taxation are used. These services are provided by the postal licence holder at regulated prices corresponding to the real costs.

Universal services are provided by the postal licence holder on the basis of **the licence proceedings**. The rules of these proceedings are defined by the Act on Postal Services.

Specific issues of the universal service in the train transport

Local railway transport services are subsidised both by regional bodies and the state. For 2003, 14 contracts were concluded between the national railway carrier – the Czech Railways and respective regions for financial amount of CZK 2,1 billion. Furthermore, the contract on providing of public railway transport in the state interest between the Czech Republic, represented by the Ministry of Transport, and the Czech Railways for amount of CZK 4,8 billion was also concluded. This sum is used for procuring long distance passenger railway transport and for covering so-called “tariff loss”, e.g. the difference between the regulated price of fare and actual costs.

The funds are allocated to the local services as follows: the assigned amount for the subsidy of passenger railway transport for individual regions is stipulated within the respective chapter of the state budget. The rules for setting the amount level and its distribution are governed by the legal regulation.

Providing of the passenger railway transport services is organized according to the agreed timetable. The carrier provides railway transport services according to the demand of the regions and the concluded contracts on public service obligations. These contracts state that the contractor of the transportation amount (a region or the state) commits itself to cover the fixed price to the carrier, which serves to cover the loss of the carrier. **In case the agreed amount of transport is lower than that for the previous year**, the carrier decreases or even stops the transport on ineffective sections, eventually keeps on providing it at its own business risk.

Role of the competition authority with respect to the formulation of universal service obligations

The competition rules in the Czech Republic are contained in the **Competition Act**⁴ and the **Office for the Protection of Competition** is the central body of the state administration for the support and protection of competition against prohibited infringements.

According to the rules obligatory for all central bodies of state administration, the Office belongs among those institutions to whom all the legislative and other materials have to be sent for comments. These rules were adopted by the government and oblige all proposers of legislative materials for the government's meetings, i.e. the bills, implementing regulations, as well as non-legislative materials – e.g. privatisation projects, long-term strategies, concepts and policies. This mechanism enables the Office to submit its comments before drafting the final proposal of every substantial material, particularly those comments aiming at promoting pro-competition principles. Using the same regime, the Office has an opportunity to make comments to the legislation proposals concerning the regulation of universal service obligation.

Even though the regulation of universal service obligation is fully in the powers of the respective sector regulators, the Office has a possibility to effectively express its comments to the draft legislation in this area, which is crucial.

The Office supports a model of universal service obligation, that is technologically neutral, does not bring any unnecessary barriers to entry to the market and which is sufficiently transparent in terms of financing and selection of provider. The preferred way of universal service provider selection is constituted by periodically repeated tenders, which may be considered to be a way to minimize the costs of universal service provision. In the Office's opinion the universal service shall be aimed at satisfying the needs of people with special status (persons with low incomes or with special social needs – e.g. handicapped people), because blanket (not targeted) measures could under some circumstances cause the creation of barriers to entry.

⁴ The Act No. 143/2001 Coll., on the Protection of Competition

DENMARK

1. The most common definitions of USOs

Danish legislation has defined USOs in a majority of the infrastructure sectors.

The USOs in Danish legislation are usually defined as:

- an overall obligation for the service provider to supply all customers at equal terms and at reasonable prices, regardless of the customers need or geographic situation,
- an obligation to supply customers within the geographic limitations of the existing supply net at equal terms and at reasonable prices, or
- a specifically defined obligation according to contracts following public procurement.

2. USO's as defined in different sectors

In the postal sector the USO is defined as an obligation of distribution of all letters and packages smaller than a defined weight and size, for example letters under 2 kilos, both to Danish and foreign destinations.

In the telecommunication sector the USO is defined as an overall obligation to secure all end-users the possibility of getting specifically defined services as for example basic telecommunication services and emergency communication services at reasonable terms and reasonable prices.

In the electricity sector the USO is defined as an overall obligation to supply all consumers with sufficient electricity on transparent, objective, reasonable and equal terms.

In the transport sector the legislation defines very few USOs. It is up to the relevant public authority to judge whether the private sector supplies a sufficient amount of transportation. If this is not the case, there might e.g. be a need for public financing of a specific bus route or other activity. In this case the relevant authority is obliged under EU legislation to define an USO and run a public procurement invitation.

In the railway sector, the situation is slightly different. On national and regional routes the Danish Ministry of Traffic negotiates so-called "agreements on public service traffic" with the state owned private company DSB, the former state railway traffic provider. It is only on a few regional routes that an alternative provider (Arriva) carries out the railway traffic according to public procurement. The USOs are regulated in the contracts with DSB and Arriva. It is planned for local railway traffic to be submitted to public procurement within a few years.

There are no defined USOs on air traffic in Denmark.

For public heating, gas, water and sewage, the legislation sets out geographically limited USOs stating that the service providers have an obligation to supply the customers within the geographic area of the existing net.

3. Selecting the service provider

In the postal sector the legislation has placed the USO for letters and packages up to a certain size and weight with the incumbent provider Post Danmark, the former state owned postal monopoly. Post Danmark still enjoys a monopoly on the handling of small letters and packages, e.g. letters less than 100 grams.

In the energy sector the USO is given in the Electricity Supply Act and The Natural Gas Supply Act. Obligation supply companies are given a licence from the Danish Energy Authority for a specific geographical area. These companies are usually subsidiary companies of the net distribution companies in the same area. The licence is normally given for a period of five years. The Danish Energy Authority also gives licences to net companies for a period of minimum twenty years.

In the telecommunications sector the sector specific legislation in Denmark makes it possible to appoint a universal service provider. There has been no formal appointment of a universal service provider according to the legislation, but the incumbent operator, the former state owned monopoly TDC, has taken on the USO.

On most Danish national and regional railway lines, the service provider is “selected” by the Danish Ministry of Traffic according to contracts on public service traffic. Only on a few regional routes, the selection of the service provider is the result of bidding in public procurement.

Public bus transportation is normally considered an obligation for the local or regional community. According to the EU Directives on public procurement, the relevant local or regional authority normally selects the service providers by public procurement.

Ferry transportation is only subject to service obligations on routes, where the state or the local or regional authority finds that private initiative does not provide the sufficient transport and thereby fails to fulfil the public obligation. Primarily it is only on routes to smaller islands, that public financing is necessary. In these cases, the service provider is selected by public procurement.

In Denmark, water supply is a local municipality obligation. Danish water supply is highly decentralised. There are 2.792 public water suppliers in Denmark – each of them obliged to supply customers within their own network area.

4. Legal monopoly or other advantages

In the postal sector, the universal service provider has a legal monopoly on part of the “USO area”. This monopoly has been reduced gradually according to the EU Postal Directives. On 1 January 2003, the monopoly area in Denmark was reduced from letters less than 250 grams to letters less than 100 grams. The intention is that the monopoly area is to be reduced even more and then repealed. Post Danmark will still have the advantage of a widespread network e.g. by the ownership of existing mailboxes.

In the energy sector the supply obligation companies has a legal monopoly within its own area. However the electricity market has been fully liberalised since 1 January 2003 and the natural gas market is about to be fully liberalised. This means that all customers have the right to choose supplier. The supply

obligation companies are for customers that are unable or unwilling to buy on the free market. Net companies (transmission or distribution) have a legal monopoly.

In the telecommunication sector, the universal service provider does not have a legal monopoly. TDC still has a de facto monopoly on “the local loop”. The Danish IT- and Telecom Agency regulates the price for admission to “the local loop” for other providers. Furthermore, other providers are obliged to deliver information on telephone numbers for free to TDC, as TDC has a legal obligation to perform information services on all telephone numbers..

In railroad transport, the service provider has a legal monopoly on train services on the routes in question for the contract period. Most national and regional routes in Denmark are, as mentioned above, covered by DSB, the former state railway traffic provider, except from a few regional routes operated by Arriva according to public procurement. On local railways, the local or regional communities usually make contracts with the incumbent local railway traffic provider. In the future the local railroad traffic is also to be submitted to public procurement.

The providers of local and regional bus traffic are selected by public procurement. The provider selected upon will have an exclusive contract during the contract period.

Publicly financed ferry traffic is regulated on similar terms: The provider selected by public procurement will have an exclusive contract during the contract period.

5. Uniform prices or cost related prices

In the USO-area of the postal sector the prices on different services are uniform and regulated according to the RPI-X principle. Hence the uniform prices are allowed to increase with the retail price index minus x pct., where x is 1 pct.

Prices in general are cost based in the energy sector (gas, electricity and public heating). Still, on some transmission and system provider obligations, prices are uniform. The prices are regulated by the Danish Energy Regulatory Authority. Net companies are benchmarked against each other and the prices will be regulated in consideration to the benchmarking. The most efficient companies gain a higher profit.

In the telecommunication sector, the prices of the services covered by the universal service obligation are uniform.

For railway transport in Denmark, prices are calculated on basis of uniform principles (“zones”).

In public bus service, prices are usually determined in the public procurement contract. This is also the case in ferry transportation, if the service provider is operating on financial support according to a public procurement contract.

6. Public financial support

The universal service provider in the postal sector does not receive subsidies for upholding the USO, except for the distribution of magazines. The USO is financed indirectly by the revenue from small letters and packages. However, Post Danmark is not allowed to cross subsidise from the monopoly area on small letters and packages to parts of the USO-area submitted to competition - e.g. on letters more than 100 grams, but less than 2 kilos.

The telecommunication sector is not subsidised. The universal service provider is allowed to receive subsidies, but has chosen not to.

Railway passenger transport is massively subsidised through substantial subsidies on each ticket. The size of the subsidies on each ticket is determined in the public service contracts (DSB and local railways) or in the public procurement contracts (Arriva).

Similarly bus transportation is subsidised through a public contribution on each ticket as determined in the public procurement contract. This is also the case in ferry transportation, if the service provider is operating on financial support according to a public procurement contract.

7. Underprovision

It is likely to assume that rural or insular areas would receive poorer postal service if t no USO existed.

The energy networks are fully rolled-out (except maybe for public heating in some areas). Furthermore, it is easy to impose taxes on connection to the network. Hence under-provision of energy services without USOs does not seem likely.

Similarly the telecommunication networks are fully rolled-out and underprovision without an USO seems unlikely, even in rural or insular areas (with the exception of e.g. remote islands). Generally however service providers are incurring losses in these areas and additional services, e.g. repairs within a limited time period, might be cut back in rural areas.

Without USOs (or USO-like arrangements) public railway and bus services would not be provided in many parts of the country, except from highly populated areas and between major cities.

On the other hand, it is likely that private initiative in the local communities would keep e.g.-ferry routes to small islands running. Hence an absence of USO-like arrangements and financial support doesn't seem essential if local initiative is likely to take over the service.

8. Entry barriers

Because the universal service provider has a legal monopoly on certain letters, packages and other services, alternative suppliers are kept from competing on a large part of the market. Furthermore, alternative suppliers are not allowed to put up their public mailboxes.

The incumbent suppliers of energy services have de facto monopolies on network facilities. New entrants thus face significant entry barriers unless legislation imposes third part admission to the network is on the incumbents (This is also the case in the telecommunication sector).

The incumbent telecommunication operator in Denmark, TDC has been forced by EU legislation to open up the network for third parties.

In railway transport, the main entry barriers are physical and technical: Due to safety matters, only one provider can use the same tracks. Obviously the roll-out of new tracks would be a huge financial investment, and hardly rational. Thus, new entry is only possible as the result of public procurement. The largest barrier to entry is that it is up to the Danish Ministry of Traffic to decide if railway service is to be provided according to public procurement. Up till now, this is only the case in a few regional railway lines.

Public bus services are normally serviced according to public procurement contracts, new entrants are able to enter the market through public procurement though there is no competition between providers on a daily basis.

9. Other effects on competition

In the energy sector, the USOs have made the network companies exceed capitalisation, which have led to inefficiency and high prices. The efficiency regulation does not function in practice. Due to high entry barriers, there is no competition in the retail stage.

In the telecommunication sector, for several years the USO has been combined with price regulation in the retail stage. This has led to lower prices. But lower prices also mean that the possible business margin for competitors has narrowed down, which has reduced competition.

10. Role of the NCA

In the postal sector the DCA monitors if any cross subsidisation occurs between the monopoly area to the areas submitted to competition.

In the telecommunication sector, the DCA is primarily monitoring whether the implementation of price regulation is inconsistent with the competition regulation.

The DCA does not have an official role in the way the Ministry of Traffic is handling agreements on railway traffic. But the Ministry of Traffic has invited the DCA in discussions regarding new contracts on public service traffic.

11. New sectors for USOs?

At the moment, the DCA is analysing the possibilities of liberalising the sea and harbour piloting business. As it is, piloting is a state obligation and the state piloting service has a legal monopoly in national Danish waters. The DCAs intent is to open up the market for alternative service providers, while the state piloting service keeps the USO. The compensation for keeping up the USO could be a possibility to apply for funding to cover up for piloting showing a deficit.

Industry-specific questions

Post. Why should mailboxes not be deliverable by package delivery companies, if those companies provide a reimbursement to the postal service?

Admittance for third party package delivery companies to use the incumbent provider's mailboxes would create inefficient needs for screening of the different companies' mail. Allowance for package delivery companies to put up their own mailboxes would create problems for the consumers. Instead, it should be allowed for all providers to establish mail and package collecting agencies anywhere.

Electricity. Is there a uniform price for building a new physical connection to the customer? Is there a uniform price for electricity across regions with different costs? Can anyone besides the electricity transmission company build such a connection? Is distributed generation encouraged when it is economically reasonable?

Prices for building new connections are based on costs. The provider is obliged to inform the Danish Energy Regulatory Authority about the prices. In theory, everybody is able to build connections to the customers if they are able to get authorized by the Energy Authority. Authorization is given if it is considered to enhance social welfare.

Telecommunications. Should local fixed line phone service (excluding mobile) be considered a universal service, or should access to the telephone network (including mobile) be considered a universal service? Is the price for establishing a new residential connection to the network uniform? Can anyone besides the local telephone incumbent build such a connection? Is there any evidence that universal directory services would not be provided in absence of a universal service requirement? Should directory services be characterized as a universal service?

An USO for directory services is imposed upon the incumbent operator TDC without any kind of reimbursement.

Transport. Are local transport services subsidized by local or regional bodies or by a national authority? How are funds allocated to local services? Can local passenger train services be stopped if uneconomic? If not, how can their losses be reduced?

Local transport is normally considered an obligation for the local or regional community, which is also responsible for the financing. The local or regional community thus finances the public contribution to each ticket on terms set in the public procurement contract. Funding is allocated by income taxes recovered by the communities. As there normally are not set any USOs in the regulation on local transport, it is the local or regional community who decides the existence and frequency of the traffic service. In the end, it is a political issue to keep up the necessary public transport service.

HUNGARY

1. The definition of USO

Although no general definition on USOs exists in the legal texts, based on the Constitution establishing that *citizens of the Republic of Hungary have the right to social security* and based on other, sector specific legal provisions it can be established that under USO the Hungarian law means services necessary for the maintenance of a certain level of lifestyle, social welfare and competitiveness for the society.

Beside the designation of these services the nature of their provision also forms part of the definition. In general USOs could not be provided on a sufficient level without setting up a monopolistic service provider for both potentially competitive and non-competitive parts of the given service. As measuring profitability in the case of such services is a complex issue, some activities might be unjustifiably established as USOs. This fact however does not disprove the definition itself, simply leaves grounds for further liberalisation.

1.1. Telecommunications

USO is a relatively new concept in the Hungarian telecommunications sector. After the change of the political and economic regime, 4 local telecom operators (LTOs) and the former monopolist Matáv were entrusted with providing telecommunications services. The obligations and rights of the operators were laid down in the concession agreements concluded with the Minister. The enterprises had exclusive rights for 8 years in their territories to provide fixed line telecommunications in order to ensure the development of the core networks and to supply services at an affordable price. The exclusive rights of the incumbent companies expired in 2002.

The universal service obligations were at first defined in the Communications Act of 2001. The universal service obligation embodies the provision of (i) access to the public telephone network at a fixed location capable of supporting voice and data communication (appropriate for sending fax messages and providing modem-based data transmission offering a transmission rate of at least 9600 bps), (ii) public pay telephone services, (iii) directory enquiry services and directories and (iv) emergency calls free of charge.

The Hungarian system distinguishes between two types of universal services, which means that there are two tariff packages called the 'normal' and the 'preferential' universal service package. The technical content of the two packages is more or less the same; main differences can be found in the pricing structures. The 'normal' package is thought to be cost covering (aside from the local access deficit as a consequence of the lag of the tariff rebalancing) thus should not be financed but the 'preferential' universal service package has a lowered subscription fee and higher calling tariffs. This latter is a targeted tariff package dedicated to specific consumer groups and for social purposes the regulator has determined the minimum difference applicable in the monthly subscription fees between the two universal service packages. As this package thought to be money losing service it can be financed from the so called Universal Telecommunications Service Fund.

1.2. Energy sector

The right for a certain level of social welfare appears in the field of energy supply as a right to get access to a justifiable minimum level of electricity and to the supply of gas in areas where its provision can be carried out economically. The State determines prices on a way to enable the consumption of electricity

and gas also for those who are on the lowest level of living. It also establishes special price for those who are in need.

1.3. Postal services

According to the Act on Communications, the following postal services are established as USO:

- a) postal services relating to the delivery of domestic and international postal consignments up to two kilograms in weight;
- b) postal services relating to the delivery of parcels within Hungary and from Hungary to abroad up to ten kilograms in weight and from abroad to Hungary up to twenty kilograms in weight;
- c) postal services relating to the domestic and international delivery of consignments containing materials written in Braille for the blind, up to seven kilograms in weight;
- d) postal money order service within Hungary;
- e) extra services: acknowledgement of receipt and insurance of value available along with the services specified in points a) to c), registered service in connection with the services specified in points a) to c) and acknowledgement of receipt in connection with the service specified in point d).

Compared to the USO defined in Directive 97/67/EC, an additional element can be identified in the provision of postal money orders which is not only a universal service but also reserved for the designated universal postal service provider. Besides, the obligation on the provision of deliveries with written material to the blind is also additional to those defined in the Directive.

2. Making a service a USO

While deciding whether a service should be covered by a universal service obligation or not, the government considers the social and political importance of the particular service and if it were underprovided without the universal service obligation. Only those services can come under the scope of USOs that are already generally provided to the society. Non-commercial service obligations are not appropriate to resperse new or rare, immature services such as Internet access.

Due to changes in the relevant EU provisions and the obligation to harmonize national legislation the system of USOs were revised in the telecommunications sector. In the field of energy due to gradual liberalisation the scope of USOs is also subject to revision to some extent.

3. Financing USOs

3.1. Telecommunications

The most acute problem is the financing of USOs. Activities thought to be non-profitable are financed by the Universal Telecommunications Service Fund. The contributions to the Fund's revenues must be paid by every telecommunications service provider, e.g. fixed line telephone operators, mobile operators, cable TV operators, Internet service providers and so on. The payments shall be made each year in the amount of a certain percentage – determined according to the actual funding requirement – of the net revenues generated from telecommunications services less expenditures on interconnection, revenues generated from universal services provided on the basis of targeted tariff packages and payments from the Fund. However the subsidies in fact are not based on the operators' reasonable and recognised additional costs incurred in connection with the provision of the universal services. The payments from the Fund are granted in the amount of the revenue lost due to the difference in the subscription fees between the

‘normal’ and the ‘preferential’ tariff packages and the system ignores the universal service providers’ potential benefits accruing from the enhanced network usage and the higher calling tariffs applied in the ‘preferential’ package. The total financial demand is expected to increase collaterally with the widening of the gap between the subscription fees for social purposes.

Similarly, the principles of the contributions to the Fund are also criticised. On the one hand, the total amount is presumably higher than it should be, and on the other hand, the services, on which the financial burden of USOs is settled, benefit from the advantages of USOs far less. Charging modern, recent and immature services with the costs of universal services can have undesirable effects on the development of these new services and can cause losses in the social welfare by distorting market conditions. These services typically have high demand elasticity so higher prices result in much lower demand.

As there are five different universal service providers facing with different cost structures, density ratios and demographical and material characteristics of the population, operators offer disparate universal service packages. Only the price of building a new connection is regulated uniformly for all operators with the proviso that they can claim 50% of their additional costs from the subscriber when the line must be established in a suburban/rural area and the regulated price does not cover the corresponding costs.

The universal service providers must keep separate books and accounts for their revenues, costs and expenditures occurring due to the provision of the targeted universal service package. In order to determine the need for financial maintenance, the universal service provider has to calculate the costs of providing universal services at a discount using the long-run incremental costs method.

3.2. *Energy*

In the case of electricity or gas provided for individual consumers the smallest cost and a suitable margin for efficient suppliers serve as a basis for the calculation of the price cap. In the sector of electricity and gas suppliers costs are analysed on a benchmark basis. Justifiable cost elements are included in the calculation of the price cap. Cross-financing is prohibited between the competitive and the utility markets.

3.3. *Postal services*

The Communications Act established a Postal Fund for financing the USO. The payment obligation to the Fund is also imposed on the service providers outside the USO, which obligation is not considered justified by these providers and in fact not compatible with Directive 97/67/EC. The planned new act, which would take effect next year does not foresee a Postal Fund taking into account the European experience, which showed that the reserved services are sufficient to cover potential losses stemming from the provision of USOs. The planned changes would result in a more competitive market in relation with a great part of universal postal services while cross financing between reserved and competitive services by the designated provider would secure the constant provision of all universal services. The abolishment of the Postal Fund would eliminate the burden imposed on competitors, which did not provide services subsidised by the Fund. It is considered that cross financing even if it would reduce transparency is a better solution in this special field.

4. *Entry and exit barriers*

4.1. *Telecommunications*

The Minister shall invite proposals for the provision of universal services if (i) provision of the universal service is not fully guaranteed under the concession agreements or the universal service contracts, (ii) the scope of universal services is broadened and the procedure aiming at the modification of the existing contracts fails or (iii) a universal service provider intends to terminate provision of the

universal services. The Minister shall make the decision on the bidder considering the tariffs and the quality of the universal service to be supplied. As a consequence, a new operator can only be designated as a universal service provider if a new service is to be provided or a former universal service provider exits. In spite of this, entry in the markets covering or embodying universal services is possible but new entrants could not reckon on compensation in respect of the provided services.

4.2. Energy

As the provision of universal services is obligatory market entry and exit is restricted. The regulator supervises the financial and technical suitability of the entering undertakings. All changes in the structure are controlled and the regulator may intervene in case of changes endangering supply. Although no exit without succession happened on the market it is clear that such an abandonment of the provision of the services is not possible.

4.3. Postal services

Universal postal services may be provided by the designated universal postal service provider. In parallel with the preparation of the new Electronic Communications Act, the Government is preparing a new act on postal service with a purpose to liberalise the market segment of USO services. According to the draft of the new act, the universal service provider will be designated by the Act, and it can maintain the exclusive right to provide the reserved services. Other universal postal services not reserved for the designated undertaking may be provided by other service providers in a chosen territory subject to the authorisation of the regulator. Since these providers cannot benefit from the possibility of cross-subsidization between reserved and the selected universal services, these latter services will not be subject of legal obligations relating to supply, quality and prices. The provision of postal money order services will not be a part of USO, nevertheless, the designated universal service provider will still be obliged to provide them.

5. Problems of USOs and planned solutions in the field of telecommunications

The adopted system does not ensure the aims of the universal service concept, as it does not serve for the expansion of access and usage. The supplied universal service tariff packages do not reflect the actual market situation and the income features of the Hungarian society. The so-called targeted (preferential) tariff packages are not in fact targeted, the self-selection mechanism poses problems of equitableness among consumers and the financing method burdens particular operators unduly.

One of the problems revealed is that regulation meets the requirement of technological neutrality only at the level of principles but in practice it prefers fixed line telephone services. As it has already been mentioned the penetration rate had been very low before the privatisation process. The incumbent companies undertook in their concession agreements to develop the networks and the provision of services so they commenced to invest huge amounts in this field. Accordingly, penetration rate stepped up measurably but in 1994 – far before the saturation of the fixed networks – mobile services appeared and gradually gained ever larger importance. In the meantime fixed penetration growth slowed down and from 2000 it is even declining. The intention of the regulation in connection with universal service obligation was presumably to further improve the fixed penetration but this attempt failed. Not only the efforts to enhance fixed penetration were unsuccessful but the system was not even able to stop churning.

The purpose described above was also not answered by the ‘preferential’ tariff packages. Any the less that these packages are not in fact targeted packages as it is conceptualised in the law. They are aimed at establishing a real alternative, a choice for low income consumers but they are used not only by socially disabled, indigent people but for other purposes (e.g. as a second subscription in weekend-cottages) as well. This situation both enhances the financing requirements and poses problems of fairness.

The current regulation does not promote competition in the field of universal services. As a consequence of the nomination process there is only one designated operator in each particular area for all items of the universal service obligation determined in the Act. Moreover, without any detailed procedural guarantee the rules of the operators' assignment are not appropriate for securing the efficiency, objectivity, transparency and non-discrimination of the process.

As a result of the review of the effective legal framework and as a consequence of the new regulatory regime in the European Union the Minister has decided to codify a totally new law. This new regulation, called the Act on Electronic Communications, has not yet been adopted, as the Parliament discusses the draft this fall. Whereas the final version of the text is not known we can only describe here the main points and alternatives the Ministry considered when preparing the new rules concerning universal service obligations.

The set of services to be provided as universal services will presumably not change but the system of providing those services would be modified. The proposed measures are all aiming at reducing the financing weight on telecommunications operators:

- The selection of universal service providers would be based on a less arbitrary scheme – the most cost-effective company (companies) would be assigned, being either fixed line or mobile operators;
- The financing demand of an operator would not be granted automatically and would be calculated as Net Evitable Costs using LRIC method;
- The universal service concept would be separated from social considerations, the affordability of services would be secured in the form of vouchers awarded to low-income subscribers and would be financed from the budget;
- Only those service providers would be obliged to contribute to the Fund's operation who can benefit from the provision of universal services.

The current regulatory framework was not able to reach its aims of creating competitive circumstances in the telecommunications sector and so enhancing social welfare: incumbent operators and service providers of the same ownership still have significant market power on the relevant markets. From the new regulation and within this from the rules concerning universal service obligations both the regulator and the Competition Office await the intensification of competition, increase in the competitiveness of the economy and growth of the consumers' welfare.

JAPAN

Introduction

Concerning universal service, the Japan Fair Trade Commission (JFTC) published reports titled “Competition Policy for the Introduction of Competition into Postal Services” and “Regulatory Reform and Competition Policy in the Telecommunications Business Field“ researched by the Study Group on Government Regulations and Competition Policy. These reports explain views from the stand point of competition policy in the telecommunications sector and postal services sector. In addition, with regard to the transportation sector, there are exempted cartels from application of the Antimonopoly Act to ensure the passenger transportation services necessary for local residents’ daily lives (so-called lifeline routes).

1. The view on regulations concerning universal service as described in the Study Group’s reports

(1) “Competition Policy for the Introduction of Competition into Postal Services”

In this report, published in November 2000, the Study Group outlined the following approach with regard to universal service concerning postal services, after stating its basic view on introducing competition into postal services being provided at that time as a state monopoly and proposing various necessities, such as ensuring conditions of fair competition between the state postal services entity and private entrepreneurs in the liberalized sectors.

Until now, from standpoints such as ensuring universal service that delivers postal services to the entire country at low cost, the government had adopted a policy of granting monopoly status to the state postal services entity, and in conjunction with this, imposing the obligation to provide postal services. When one considers, however, that

1. In courier services that closely resemble postal services with respect to operations, some entrepreneurs have established nationwide networks and are now in a position to provide services covering a nationwide area of the country; and
2. In the postal services of various foreign countries that have already introduced competition, it is also pointed out that many postal service entities have positioned providing universal service as one business strategy technique,

the ability to deliver postal services to the entire country at low cost is itself considered as an important means of competition for postal services and it is conceivable that private entrepreneurs shall voluntarily provide such services even if the government does not adopt any policy. However, so far, there has been no consensus that no obstacles shall occur assuming universal service is entrusted to private entrepreneurs, and therefore, even assuming overall liberalization in the future in principle, given the goal of ensuring universal service, it is appropriate to introduce competition into postal services by gradual degrees.

Since April 1, 2003, the correspondent delivery business that was a state monopoly at the time of the study for the above-mentioned report has been open to private – sector operators.

(2) *Regulatory Reform and Competition Policy in the Telecommunications Business Field*

In this report, published in November 2002, the Study Group presented the following approach concerning universal service in the telecommunications business field after suggesting a number of considerations concerning system reform. These included the proposals that because technical innovations in the field are advancing, basic policy in the field should be to clarify prohibited activities in advance and regulate using ex post methods rather than to depend on ex ante regulations such as approvals and licenses, and the observation that for any system to ensure fair competition the JFTC and the regulator shall work together.

As for regulation of universal service in the telecommunications sector, such as regulation concerning universal service in the sense of ensuring fixed telephone services and other means of communications that are indispensable to citizens' daily lives and for emergencies, it is important to limit the services covered and contents appropriately, and to continue to review the bounds of regulations as markets change. Moreover, with regard to regulation of the services in question, it will be necessary for the JFTC to participate in reviews of the regulation concerning the services covered and the contents, from the viewpoint of the effects on competition.

2. *Summary of exempted cartels to ensure local residents' lifeline routes*

In Japan, private entrepreneurs provide various buses, maritime and aviations transportation services, with each entrepreneur determining its operating routes by taking factors such as profits into consideration. Despite the fact there are marine routes, etc. that are both necessary and indispensable to many local residents' lives, such as the maritime routes to isolated islands, in order to ensure the necessary services as the underpinnings of local residents' lives when individual service providers find it difficult to maintain services independently because of a drop in demand, in some cases providers must conclude joint operating agreements. The Marine Transportation Law, the Road Transport Law, and the Aviations Law recognize such joint operations to ensure lifeline routes to be cartels exempted from application of the Antimonopoly Act. Such cartels are premised on receipt of approval from the competent ministers. Regulations have been established that require the ministers to consult with the JFTC, and procedures to prevent abuse of the exemption system on the Antimonopoly Act have been adopted.

3. *Japan Fair Trade Commission's efforts*

The JFTC believes it is important that the systems to ensure universal service be as neutral as possible towards competition in the marketplace and continually the areas subject to universal service be reviewed as markets develop. From the standpoint of the influence on competition, the JFTC participates in designing of the systems, through consulting with regulators concerning amendments to business laws.

Response to a listener's question

Role of the competition authority

- 1. USOs often create entry barriers or payments from new entrants to incumbents. As a result, such obligations can have a significant impact on competition and the efficient provision of services and some observers might argue that competition authorities should be involved, in at least an advisory capacity, on government decisions related to the provision of universal service obligations. What is your view on the appropriate role of a competition authority with respect to USOs?*

The importance of ensuring universal service is not denied. However, the preferred approach is to promote competition as much as possible and to adopt measures on a limited basis to ensure

universal service in a format that supplements this approach. Therefore, universal service obligation should not be used easily as grounds for regulation because of its negative effects.

It is important that any system to secure universal service is as neutral as possible toward competition in the marketplace, and to review continually the areas subject to universal service as markets develop. Considering the effects on competition, the JFTC believes that it is important to express its opinions to regulators concerning the systems to ensure universal service based on the standpoint of competition authorities.

2. *USOs are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted /not accepted that argument? Please describe your main cases.*

There were no cases in question in Japan.

Post

1. *Why should mailboxes not be deliverable by package delivery companies, if those companies provide a reimbursement to the postal service?*

Note : Japan interprets “mailboxes” as “correspondence” in this context.

With the enforcement of the “Law Concerning Correspondence Delivery by Private Sector Operators (“Correspondence Delivery Law”)” on April 1, 2003, private-sector operators were allowed to engage in correspondence delivery business, which had been monopolized by the state. The enactment of the Correspondence Delivery Law introduced competition in postal businesses and expanded choices of users.

Telecommunications

1. *Should local fixed line phone service (excluding mobile) be considered a universal service or should access to the telephone network (including mobile) be considered a universal service?*

In Japan, the Telecommunications Business Law defines a universal service as telecommunications service that is “indispensable for national daily lives, which shall be ensured to be provided nationwide on a non-discriminatory basis” and “prescribed by the applicable ministerial ordinance of the Ministry of Public Management, Home Affairs, Posts and Telecommunications”. Specifically, it is local fixed line phone service. The reason why access to the network is excluded is based on the perspective in which it is ensured that the universal service is offered on appropriate condition, such as at available price to anyone.

As for fixed line phone service, all telecommunications carriers bear the universal service cost because it is excessive burden for the incumbent carrier alone to impose universal service obligation in the competitive situation where other carriers also offer the service. On the other hand, however, mobile phone service is not considered as universal service since the penetration rate is 54.7% and still developing and the service has been expanding in the competitive market since its beginning.

2. *Is the price for establishing a new residential connection to the network uniform?*

As for the incumbent local carrier, it is uniform regardless of geographical area.

3. *Can anyone besides the local telephone incumbent build such a connection?*

The carriers besides the local telephone incumbent can build such a connection, however, in reality, the carrier that can build a subscriber line on a nationwide scale is only the incumbent local telephone carrier.

4. *Is there any evidence that universal directory services would not be provided in absence of a universal service requirement?*

There is no evidence. We do not consider the directory service as a universal service but currently it is offered.

5. *Should directory services be characterized as a universal service?*

The directory service is not regarded as a universal service because it is not commonly used by the general consumers but mainly by business users.

Transport

1. *Are local transport services subsidized by local or regional bodies or by a national authority?*

The national government does not subsidize local railway operators in order to compensate their deficit. But this does not prevent local governments from subsidizing by their own decision.

In case operators satisfy the conditions such as being in the red, the national government helps them with the cost of improving facilities in cooperation with local governments for the purpose of safety. This subsidy is not limited to operators in rural area.

2. *Can local passenger train services be stopped if uneconomic? If not, how can their losses be reduced?*

No. Fundamentally, the operation of railway business depends on its own responsibility. So when the operation becomes deficient financially, it should be improved by its own effort.

NORWAY

1. Introduction

In Norway, some 50 regional air routes are subject to tendering under Public Service Obligation (PSO), in accordance with Council Regulation (EEC) No 2408/92 Article 4 on access for Community Air Carriers to Intra-Community Air Services. Widerøe, an airline within the SAS Group, enjoys a dominant position in this market, partly on account of the rather narrow service quality standards defined by the Norwegian government, which, in combination with the STOL (Short Take-Off and Landing) criterion, allows, on many routes, for only one type of aircraft – the De Havilland Dash 8 (with a non-standard, high-power turboprop engine). This plane is apparently no longer in production, but Widerøe owns a fleet of the specially modified planes and is the only Scandinavian airline that does so (see Background note DAF/COMP/WP2(2003)5/REV2).

The main purpose of this brief note is to provide updated information on developments within the Norwegian system of PSO air routes, with a view to stimulate discussion on certain, more general regulatory issues. There are at least two questions that have come to the forefront in the recent months. One concerns the possible abuse of dominant position in the form of predation through excessively favorable bids. Another is concerned with the design of the tendering process and the formulation of terms in the PSO contract, in which it may not be desirable to allow for the carrier's withdrawal before the end of the contract period. These two questions are, in fact, not entirely unrelated.

2. Abuse of dominance in tendering

In December 2002, Norwegian Air Shuttle cancelled its PSO contract on the Lakselv-Tromsø and Andenes-Bodø/Tromsø air routes with one year's notice, i. e. effective January 1, 2004. A new tender was announced for the period until December 31, 2006. This tender was won by Widerøe, although five bidders took part. The Norwegian Competition Authority (NCA) has received a complaint from Association of Norwegian Air Carriers, claiming that the winning bid was markedly under priced and constituted an act of predation by Widerøe. The case is being examined by the NCA.

3. Withdrawal clauses

The Norwegian PSO contracts for air routes are written for a period of three years, however with one year's cancellation notice. This essentially allows the air carrier an opportunity to terminate the contract ahead of time if, e.g., it should find that the contract does not provide sufficient revenue to balance the costs and/or provide the desired profit.

This type of withdrawal clause could be seen as an instrument for risk reduction or, more precisely, for risk sharing between the carrier and the Government. If and when the revenue and/or costs of operation fail to meet expectations, and the carrier decides to cancel the contract, the loss is, in effect, shared between the contract partners. Thus, the withdrawal clauses *per se* may contribute to more favorable bids being made, and hence to a somewhat less costly PSO operation.

On the other hand, it is also conceivable that the withdrawal clause may provide the carrier with an opportunity to raise the price through *de facto* renegotiation. On July 7, 2003, Widerøe canceled its contracts for two sets of routes in Finnmark and northern Troms. This means that new tenders have to be

announced for the period after July 7, 2004. Widerøe is in a good position to win a new bid. The carrier is in a dominant position, has the necessary aircraft, and has more experience in operating the routes in question than any conceivable contender.

The duration of the contract term may be considered as a problem regarding competition conditions in this particular market. The Council Regulation (EEC) No 2408/92 on access for Community Air Carriers to Intra-Community Air Services article 4 stipulates that the contract term shall not exceed three years. This term seems to be too short for any potential entrant if the entrant has to spend large amounts of money on investments in new planes, establish a new organisation in the airports in question etc. This problem is even bigger when intermediate tenders for shorter contract terms take place when a carrier cancels the contract. The NCA thinks that longer contract terms may increase the possibilities for new entries in the market and thus increase competition. The NCA cannot specify the optimal duration of contract terms, but points to the fact that shippers in industrial shipping may demand contracts up to ten years terms. But this demands a change in the above-mentioned Council Regulation.

4. Summary

There is thus room for considerable concern regarding the incentive structure implicit in the PSO tendering process, as practiced presently in Norwegian aviation. In theory, a dominant carrier may gain by presenting an under priced bid to start with, only to cancel the contract after a certain period of time and force the public authority to organize a renewed tender. The Norwegian delegation would like to share its experience in this field with other representatives and would welcome any comment or suggestion on the issue.

PORTUGAL

I – UNIVERSAL SERVICE IN THE CONTEXT OF SERVICES OF GENERAL INTEREST

3.1. A common set of principles and obligations

The concept of the USO (Universal Service Obligation) refers to a set of requirements of general interest which must govern the provision of certain services considered essential to the lives of the population. It must guarantee that these services are made available to all citizens, under reasonable conditions of quality and price, irrespective of their geographical location, and in accordance with specific¹ national conditions and those of the sector in question.

Thus the USO concept not only reflects the **right** of any citizen to have access to the services described but also the **obligation** attached to the industries providing them to guarantee provision on the conditions referred to above.

Accordingly, in the context of a liberalized market, the guarantee of access to universal services for all citizens, at reasonable prices and with reasonable² quality, is indispensable if economic and social cohesion are to be maintained and developed.

As with the concept of general interest, that of a universal service is dynamic in nature, i.e. it moves with the times so as to guarantee that the general interest requirements take due account of political, social, economical and technological developments, adapting to the citizens' needs.

Serious economic implications arise from applying a USO, especially as regards financing and prices. It can, however, be justified as a **political instrument** which governments adopt for **redistributive purposes**, with a view to **developing social justice** and **offsetting market failures**, as a consequence of external considerations arising from the structure of the industrial sector.

To ensure the effectiveness of universal services, the rules on this subject need to be accompanied by others dealing with consumer rights.

3.2. Principles of a Universal Service

Taking into consideration the communications of the European Commission on services of general interest, COM 96/443 of 11 September 1996 and COM 580/2000, and the European Parliament and Council Directives 97/67/EC of 15 December 1997 and 2002/22/EC of 7 March 2002, it can be seen

¹ See Art. 3 (1) of the Universal Service Directive 2002/22/EC, of the European Parliament and the Council, of 7 March 2002.

² The concept of reasonable price and quality, in a broad sense, is open to interpretation as it figures in no legislation. A precise definition, however, will need to be correlated with the country and the sector of activity.

that the USO concept must be defined according to general principles, particularly those of equality, universality, continuity and adaptability, as well as according to rules of good conduct, for example transparency in management, tariffs and financing. Furthermore, these rules must be monitored by authorities that are independent of the operators.

3.3. The relationship between USO principles and the law in Portugal on essential public services

In Portugal, the concept of an essential public service was established by Law 23/96 of 26 July, which created mechanisms for protecting users of the essential public services it provides for: the supply of electric power, gas and water and the telephone service.

For these services of general interest the legislation establishes a series of principles and obligations aimed at protecting the consumer.

Some of the general USO principles indicated above have therefore already been established for the services covered by this law.

The principles of universality, equality, adaptability and transparency are anchored in the general *bona fide* principle inherent in the law referred to above. The law stipulates that a service provider must act in good faith and in compliance with the requirements arising from the public nature of the service.

The legislation also explicitly establishes the principles of continuity, quality and the active participation of consumer organizations.

II – OVERVIEW – SPECIFIC QUESTIONS RAISED BY THE OECD

To base our approach on the cases considered most relevant for the round-table debate on 13 October, according to the OECD suggestion, we shall concentrate exclusively on the USO question in relation to the Portuguese **Telecommunications** and **Postal Services** sectors, as mentioned in the earlier note.

4.1. How and when a USO should be established

In accordance with the subsidiarity principle, it is the responsibility of the Member States to create a USO, on the basis of two factors:

- (a) political
- (b) economic

a) Political factors

The political decision to create a universal service should be restricted to cases related to essential services of general interest for which it is necessary to guarantee minimum conditions of supply for reasons of stability, equity and economic efficiency.

Underlying such a decision is the strategic nature of the good or service in question, in the light of the economic and social development of the regions, the creation of a more inclusive society and the strengthening of socio-economic cohesion in the regions.

In this context, the political decision-maker should create a USO exclusively for “goods or services of merit”, whose consumption he or she thinks it is necessary to stimulate, as without such a stimulus there is no guarantee that these goods or services will remain accessible on the market on conditions that are fair to all consumers.

b) *Economic factors*

When the market itself does not guarantee that the supply of a good or service considered essential by the political decision-maker proceeds under optimum conditions of quality and price. In this case, the objective is to make the good or service accessible to all users irrespective of their location or social situation.

On the basis of this interpretation, the USO involves an **antinomic duality**. On the one hand it presupposes state intervention in the economy, which should be limited to exceptional cases supported by the requirements of major political, economic and social objectives, within a context of controlled liberalization, so as to guard against the inherent distortions of competition.

On the other hand, in accordance with the specific principles that inform this concept, the imposition of a USO may create constraints for the service operators since they cannot act solely according to the conditions of the market and economic efficiency. This may justify state support for the USO, despite the possible adverse effects on competition in relation to the other operators in the USO market.

This fact seems to recommend a re-assessment of the scope of the USO, which presupposes that the concept of an essential good of general interest is also clarified. The purpose would be to minimize and harmonize state intervention within a framework of progressive liberalization of the various market segments, with the inherent advantages of introducing mechanisms related to competition.

According to the **EC Treaty**, however, competition policy is aimed at helping to achieve basic Community objectives, particularly with the promotion of harmonious and balanced economic development and better living standards for the people. It is not an objective in itself but a means, among others, that allows the main objectives of the Community to be achieved.

In summary:

A Universal Service Obligation should be created, when strategic services are involved, for the co-ordinated social and economic development of the country. It should be restricted to cases in which the market itself does not guarantee universal access on conditions of price and quality that are minimally acceptable. In Portugal, the creation of a USO for the telecommunications and postal sectors was a political decision taken by the state. That decision was transformed into legislation aimed essentially at the equitable social and economic development of the country. In practical terms, a series of services considered essential were made available to all users, on the basis of the harmonization of access to and the use of public telephone networks, in a fixed place, and a number of postal services.

The scope of the USO in the two sectors emerged from EU directives, which, in this respect, were fully transposed into Portuguese law.

On the **question of revising the USO concept**, the legal framework³ governing the two sectors provides for the **principle of revision, whenever it is justified**, to ensure that the concept is adapted to technological progress, the development of the market and changes in demand.

Internet access is essentially carried out via access/connection to the fixed telephone network. As such, it is covered by the USO.

4.2. Evidence of deficiencies in the supply of services

For the **telecommunications** and **postal services** sectors in Portugal no detailed studies have yet been carried out which allow us to assess if, in the absence of a USO, the services that it covers would no longer be provided or would not be provided on minimally acceptable conditions of quality and price.

4.2.1. Telecommunications

Though the **telecommunications sector** has been fully liberalized since 1 January 2004⁴, it still has not produced a nation-wide level of competition for fixed telephone services capable of guaranteeing universal access. This justifies retention of the USO. However, the ARN (National Regulatory Authority) figures show that the penetration rate for the fixed telephone service was 41.51% in 2001 and 41.31% in 2002. The EU figure for the period 2001-2002 stood at around 54%, which demonstrates the low rate of coverage of the USO in Portugal.

4.2.2. Postal services

In the **postal services sector** the competition between operators has progressively developed, leading to a progressive and controlled liberalization of certain market segments in respect of services included in the USO but not included in the reserved or exclusive area.

4.3. Entry barriers

4.3.1. Telecommunications

In the **telecommunications sector** there are no legal obstacles to market entry for new operators whose activities involve services included in the USO, since the latter is not associated with special or exclusive rights.

The existence of the USO and the granting of it to a particular operator are not in themselves legal barriers to the entry of possible interested parties.

The recent legislation on the “alienation of public property” has established that the basic telecommunications network through which the universal service is provided represents state private property and may be sold with the due approval to the USO provider, on conditions that safeguard the public interest.

Any reflection on the issue of maintaining dominant positions / liberalizing markets must weigh up the advantages and disadvantages of separating network ownership and management, on the one hand, and the suppliers and operators of goods and services, on the other, since it is not clear that such a separation is always a sound and effective solution.

³ Telecommunications sector: Law 91/97 of 1 August, amended by Law 29/2002 of 6 December. Postal services sector: Law 102/99 of 26 July, amended by Decree-Law 116/2003 of 12 June.

⁴ Ibidem Note 5

In Portugal, the basic telecommunications network is still, after the liberalization of the sector, the essential component of the universal telecommunications service. Although competition has been created with the opening up of the market in this sector, by means of alternative networks, access to the basic telecommunications network for all operators on an equal footing has been made more difficult with the sale of the network to the historic operator (incumbent operator), which is also charged with the USO.

4.3.2. *Postal Services*

For the **postal services sector**, Portuguese law⁵ establishes the principle of the liberalization of this sector in a gradual and controlled manner, through the appropriate procedures, on the basis of general authorizations or individual licences.

However, the USO consists of an area of liberalized services and one of reserved services provided on an exclusive basis by the incumbent operator. This fact places potential restrictions on the entry of new operators who intend to provide postal services in the reserved area of the USO.

The argument for such a restriction may lie in the concerns about *cream-skimming* to which the OECD refers.

However, most postal operators in Portugal operate in the express mail market, an area which is already completely liberalized and open to competition.

4.4. **Definition of a universal service**

4.4.1. *Telecommunications*

(a) The USP concept

The **LBT (Basic Law on Telecommunications)**⁶, explicitly mentions the power of the state to ensure that the telecommunications USO exists and is available, defining it as a “*set of specific obligations inherent in the provision of public, addressed telecommunication services. The purpose is to satisfy the communication needs of the people and meet social and economic requirements, in the whole of the country, on terms of equality, continuity and appropriate remuneration, taking account of the demands of harmonious and balanced economic and social development.*”

An identical definition is contained in the legislation relating to the concession of the public telecommunications service⁷, which assigns the USO to PT-Comunicações de Portugal, SA, in addition to the public telecommunication services.

(b) The scope of the USO

The scope of the USO is specified by law and includes the following services:

- Connection to the fixed telephone network, in a fixed place, and access to the fixed telephone service for all users who request it;

⁵ Law 102/99 of 26 July, amended by Decree-Law 116/2003 of 12 June and Decree-Law 448/99 of 4 November

⁶ Law 91/97 of 1 August, amended by Law 29/2000 of 6 December

⁷ Decree-Law 31/2003 of 17 February

- The provision of public telephones, in sufficient numbers, on public ways and in public places;
- The supply of telephone directories and an inquiry service, which provide subscribers' numbers for the fixed and mobile telephone services.

4.4.2. Postal services

(a) The USO concept

The Basic Law⁸ for the **Postal Services** sector established the USO concept in this sector, defining it “**as the permanent provision of postal services in all points of the country, at reasonable prices for all users, to satisfy the people’s communication needs and those associated with economic and social activities**”.

(b) The scope of the USO

The following services are covered by the USO:

- The postal service for correspondence, books, catalogues, newspapers and other periodicals up to a weight of 2 kg and the parcels service for items up to 20 kg;
- The registered mail service;
- The insured mail service.

One of the basic principles stipulated for these services is the guarantee that they exist and are available in the whole of the country, on a permanent basis, at reasonable prices and to a specified quality standard.

The legislation sets out further specifications. These are: equality, adaptability (in accordance with social, economic and technological conditions and users' needs), competition (in the light of market liberalization and the existence of an independent regulatory body), transparency and the participation and representation of organisations protecting consumer rights and interests.

In conclusion: definition of the USO for the telecommunications and postal services sector falls under the control of the state. It is of a conceptual nature and is enshrined in the law.

4.5. Choice of the USO provider

In accordance with the principle of subsidiarity, Member States may decide on the company or companies to which they will assign the USO, paying due attention, when necessary, to their ability or willingness to accept all or some of the relevant obligations.

This decision should be objective, transparent, non-discriminatory and proportionate, creating no market distortions to the disadvantage of companies operating in the same market. This means that the service should be provided on the basis of the best cost-effectiveness ratio or, in other words, the company chosen must be capable of providing the service at the lowest cost without compromising service quality.

The selection criteria mentioned above should be extended to cover a series of user and consumer rights, including those of physical access, unrestricted by considerations of disability or age, and full

⁸ Law 102/99 of 26 July, amended by Decree-Law 116/2003 of 12 June and Decree-Law 448/99 of 4 November

information on prices, tariffs, contractual terms and conditions, performance indicators and consumer satisfaction indices.

The development of competitive systems, with the inherent expansion of choice, allows the USO to be assumed by other organizations than the operators with considerable market power. Thus, the USO can be allocated to operators who show that they possess economically more efficient means for providing access to the services, specifically through competitive or comparative selection processes. This idea may essentially be used as an argument against monopolies and their exclusivity in providing universal services.

4.5.1. Telecommunications

As mentioned above, the principles of subsidiarity and liberalization in telecommunications are provided for in the Basic Law on Telecommunications and the act that regulates the USO for the telecommunications sector.

Within the scope of the USO, a fixed telephone service may be operated by the state, by a legal person governed by public law or a legal person governed by private law (the latter on the basis of a contract, which takes the form of a concession contract when it includes establishing, managing and operating the infrastructure that makes up the basic telecommunications network).

Under the terms of the law, it is the responsibility of the member of government in charge of communications to name the entity or entities responsible for providing the USO, following an invitation to tender carried out on a competitive basis.

However, despite the opening-up to competition, at the time of the liberalization process other operators were not prepared for the USO concession and so it was given to the incumbent (historic operator) – Portugal Telecom, SA, for a period of thirty years, i.e. until 2025.

At the end of that period, the government member in charge of communications will name the entity or entities responsible for providing the USO, following a public invitation to tender.

The USO may be carried out by more than one entity, on the basis of distinct services or distinct geographical areas, without prejudice to its being provided for the whole country.

4.5.2. Postal services

For the **postal services** sector, the Basic Law on Postal Services also states that it is the responsibility of the Portuguese state to ensure the existence and availability of the USO.

As provided for in the telecommunications sector, the USO in the postal service may assumed by the state, by a legal person governed by public law or a legal person governed by private law (the latter on the basis of a contract, which takes the form of a concession contract when it includes providing reserved services and establishing, managing and operating the public mail network).

Although this sector has been opened up to competition, no private operators interested in the services of public interest have emerged to date. Thus, in the legislation⁹, the public services concession, including the USO, was granted to the incumbent (historic) operator, CTT Correios de Portugal, SA, the only one able to administer it.

The contract covering the concession was signed with the state for a period of thirty years, renewable for successive periods of at least fifteen years when both parties agree.

⁹ Decree-Law 448/99 of 4 November

It should be added that there are also regulations for a system of individual licences, applicable to non-reserved postal services that are included in the scope of the universal service.

4.6. Separation of costs and prices

4.6.1. Telecommunications

In the **telecommunications** sector, the USO pricing is fixed by **agreement** and covers the following services:

A fixed telephone service for subscribers (including subscription to and installation of an analogical telephone line and telephone communications within the country), a fixed telephone service in the form of public telephones (communications within the country), telephone directories and an inquiry service.

The prices for the universal service should take into account the progressive adjustment to costs, should comply with the principles of transparency and non-discrimination and should guarantee access to users. This means that the price which the universal service provider charges for installing telephone lines should be set in accordance with the installation costs incurred.

The agreement sets special tariffs for the following groups of residential subscribers: pensioners and retired customers; customers with special needs; and customers with low consumption. It does not, however, provide special treatment for “**rural subscribers**” in relation to “**urban subscribers**”.

4.6.2. Postal services

The postal service tariffs for USO services are standardized throughout the country, with no variation on account of the consumer’s location.

The pricing for USO postal services is agreed between the ARN (National Regulatory Authority) and the USO provider. It may establish a system of maximum prices, one of geographical weighting or an equivalent.

4.7. Compensation for the universal service provider

4.7.1. Telecommunications sector

At present the appointed provider (PT-Comunicações, SA) receives no compensation for assuming the USO.

The pricing for services covered by the USO is stipulated in an agreement signed by the ARN (ICP-ANACOM – National Communications Authority) and the incumbent operator (PT).

With regard to the mechanisms for ascertaining the inherent costs of the USO the following should be mentioned:

- The cost of the USO is calculated as the difference between the net costs for an organization operating with the USO and without it.
- The calculation is based on the costs that can be attributed:
 - a. To the elements of particular services inevitably provided at a loss or at costs above normal commercial standards

- b. To specific final users or groups of final users who can only be served at a loss or at costs above normal commercial standards, when the cost of providing the network and services specified, the income generated and the possible geographical price levelling imposed by the state are taken into account.

In peripheral areas with expanding networks the calculation of the cost should be based on the extra cost of providing the service to final users or groups of final users whom an operator applying normal business principles in a competitive environment would decide not to serve.

Income and other tangible benefits arising from the USO are to be taken into account in the calculation of the net costs.

4.7.2. Postal services

At present, the incumbent operator (CTT Correios de Portugal, SA) receives no compensation for fulfilling the USO.

In accordance with the legal framework for this sector, the rules for setting the prices of the postal services included in the USO are subject to agreement negotiated between the ARN and the USO provider.

The method of ascertaining the costs of the services included in the USO has not yet been defined.

4.8. Financing

Various mechanisms can be used to finance the net costs of the USO. The trend in recent years has been that the state has increasingly scaled down exclusive rights and the market has opened up to new operators. This has resulted in the need to find other means of financial support that have fewer distorting effects on the way the markets operate.

These mechanisms vary in accordance with the historical, social and economic circumstances of each country, as well as the specific characteristics of the sector in question.

They can take various forms, e.g.

1. Direct compensation via the central government budget

This compensation is divided into various types:

- Direct financial support
- Other financial advantages such as tax reductions or exemptions

2. Special or exclusive rights (i.e. a delegated monopoly)

- The state may grant special and exclusive rights to ensure the economic and financial viability of the USO provider
- In this case the state should guarantee that these rights are not incompatible with Community rules on the internal market and do not constitute abuse of a dominant position, within the meaning of Art. 82 of the EC Treaty

3. A compensation fund

- In this case, the net costs of the USO are recouped from a compensation fund in which the concessionaire and the other service providers operating in the USO market segment participate, on the basis of the rates that are imposed on them.

4. Standardization of tariffs

- When the universal service is provided according to a standard tariff for the whole country despite the considerable differences in the cost of providing the services, as happens in certain segments of the telecommunications and postal services, such standardization of tariffs is compatible with Community regulations as long as it is enforced for reasons of social and economic cohesion and complies with the conditions laid out in Art. 86 of the EC Treaty.

4.8.1. Telecommunications

- According to Portuguese law, the universal telecommunications service provider must be compensated for the losses associated with the service, if they exist.
- For this purpose, it must demonstrate such losses and submit them for ARN approval, which shall be subject to prior auditing by the ARN itself or an independent body which it appoints.
- The calculation of the net universal service cost shall be based on objective and transparent criteria.
- To finance the losses that may arise with the USO, the law stipulates that compensation may be provided by means of a Compensation Fund (CP), to be created when the circumstances justify it. Contributions to the fund will come from the bodies that operate the public telecommunications network and the fixed and mobile telephone network providers.
- When the Compensation Fund is created, it will be administered by a body which is independent of those who contribute to it or benefit from it, to be appointed by the member of government responsible for communications.
- It is this body's responsibility to receive contributions to the CF and supervise payments to be made to the universal service provider with the right to be compensated.
- It is the responsibility of the member of government responsible for communications to issue a ministerial order approving the CF's operating rules.
- It is the ARN's responsibility to set and divide up the annual contributions to be made to the CF, in compliance with the principles of objectivity, transparency, non-discrimination and proportionality.
- The criteria for dividing up the net USO cost between the operators and providers with the obligation to contribute are defined and published by the ARN.
- However, in accordance with the ANACOM resolution on net USO costs, it is to be noted that no financial compensation for the USO has been assigned to PT.

- Mention should be made of the ANACOM resolution of 12/09/2002 approving the probable direction of the decision to be taken on net USO costs¹⁰.
- Thus, on the basis of a series of substantive reasons, including:
 - the provisions of the legislation governing the telecommunications USO;
 - the 06/12/01 decision of the Court of Justice of the European Communities in respect of Case C-149/00 (the European Commission v. the French Republic);
 - the European Commission’s positions, as set out in Communication COM 96(608); and
 - Directive 97/33/EC

ANACOM resolved to give a prior hearing to the interested parties, setting the period within which the same bodies should give a written opinion on the resolution that it intended to adopt, namely:

1. Not to accept any compensatory mechanisms relating to the period preceding full liberalization of the telecommunications market
2. To request PT Comunicações SA, if it so wishes, to provide a duly documented statement of the possible net costs of providing a universal service.

4.8.2. *Postal Services*

In the case of the **Postal Services**, the Portuguese legislation states that “unreasonable economic and financial responsibilities arising from complying with the USO may, when the National Regulatory Authority so approves, be subject to compensation”, in the following ways, singly or accumulatively:

- a) Through a **USO Compensation Fund**, supported by the concessionaire and the other postal service providers offering non-reserved USO services, provided that, on the basis of the cost accounting system, the concessionaire substantiates the USO-related costs and the expenses that should be borne by this fund
- b) By subtraction of the respective loss from the sum which the concessionaire pays to the Portuguese state
- c) Through the tariff systems in operation

When presenting the development plan the concessionaire should also show the USO-related costs and submit them to the appraisal of a committee composed of ARN members and concessionaire personnel.

In the case of rejection, the ARN will consult other postal service providers operating in the market, with a view to selecting the provider who guarantees the same USO standards on more advantageous economic terms for the grantor of the concession.

As mentioned in the point above, the CTT (Post Office) has, at present, received no compensation for providing a universal service.

¹⁰ www.anacom.pt/template12.jsp?categoryid=43494

4.9. The role of the Competition Authority

The Competition Authority was created by **Decree-Law 10/2003 of 18 January**, which approved its statutes and established its powers and responsibilities. It is the successor to the Competition Council and the Directorate General of Trade and Competition.

Law 18/2003 of 11 June approved **the Legal Framework for Competition** in effect in Portugal. It applies to all economic activities carried out on a permanent or occasional basis in the private, public or co-operative sectors.

In the area of the Portuguese economy, the Competition Authority possesses transversal powers to apply the competition rules contained in the Legal Framework, in co-operation with the sectoral regulatory bodies.

Thus, the Authority's mission is primarily focussed on:

“the efficient operation of the markets, a high level of technical progress and the greatest benefit for consumers”.

In the execution of the mission entrusted to it, it is the Competition Authority's duty, from an instrumental point of view, in the terms enshrined in the Constitution of the Republic¹¹, *“to ensure the efficient functioning of the markets in order to guarantee balanced competition between companies, fight against monopolistic forms of organization and suppress the abuses of a dominant position and other practices that are detrimental to the national interest”.*

On these grounds, **the Competition Authority should intervene in all matters that concern the USO**, particularly with respect to its definition and scope or its application, notably regarding decisions on compensation, **and in all matters that involve applying the legislation, as its responsibilities demand.**

¹¹ Art. 81 (e) of the Constitution of the Portuguese Republic

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DAF/COMP(2010)13

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SWITZERLAND

Introduction

Non-commercial service obligations play an important role in the economic policy and the public debate on Switzerland's network industries. Due to the presence of rural and remote areas, where the provision of infrastructure services like postal service, telecommunication, transport, and electricity is particularly expensive, universal service policy is in general considered necessary to assure the supply of such services in remote areas and to maintain the competitiveness of these regions.

In Switzerland, there is no general approach to universal service obligations (USOs) in different industries. For historical reasons, each sector has its own procedures and legal basis for the provision of universal service. There is no general definition of "universal service", neither.¹ The definition, procedures and scope of universal service differs among the sectors. This diversity of approaches to the provision of universal service also reflects different stages of liberalization that have been attained in the various industries.

Definition and Funding of USOs

Generally speaking, universal service may be defined as "the provision of basic supply of infrastructure goods and services for all classes of population and regions at equal terms and in good quality for reasonable prices."² Universal service thus has several characteristics:

1. ubiquitous access at equal terms throughout the country;
2. appropriate quality of the service; and
3. reasonable price of the service.

An important question is, of course, which goods and services belong to the basic supply. Due to changing needs, the scope of universal service may change over time.

Another question is how universal service should be funded. There are three basic ways how this can be done:

1. funding through cross-subsidization;
2. funding through public transfers;

¹ The term "universal service" is not used in the Swiss legislation. However, the constitution, or, respectively, the law prescribes certain obligations such as ubiquitous supply, uniform prices etc.

² Federal Department of Environment, Transport, Energy and Communications (UVEK), www.uvek.admin.ch.

3. funding through fees of market participants.

Cross-subsidization was the predominant approach for funding USOs in the monopoly area prior to liberalization. Cross-subsidization implies that the high cost of providing the services in rural and remote areas must be offset by income generated by more densely populated areas, where the production cost is significantly lower than in rural areas.

Cross-subsidies have several drawbacks. On the one hand, they are often considered inefficient by economists because they lead to socially wasteful price distortions. On the other hand, cross-subsidies may not be compatible with competition. Since cross-subsidies imply that price exceeds cost in low-cost areas, they attract market entry into low-cost areas. Such "cream skimming" entry reduces the incumbent's profits in the low-cost area which are used to subsidize high-cost areas. Cream skimming may thus erode the funding of universal service objectives.

USOs may also be funded by public transfers (tax money) to one or several firms supplying universal service. This method has the advantage that it is competitively neutral if the financial compensation for universal service costs is determined correctly. The difficulty, of course, is to choose efficient suppliers of the universal service and to determine the level of the compensation. In order to achieve this, universal service licenses may be auctioned. Funding USOs through transfers of public funds sometimes meets with opposition because it implies direct subsidization of former monopolies. It is sometimes argued that such subsidies hinder the development of competition in formerly monopolized markets.

Instead of subsidizing USOs through taxpayers' money, USOs may alternatively be funded by means of a "universal service fund", which is alimented by fees levied from market participants. The advantage of this approach is that the costs of universal service is borne by the respective industry and not by the society as a whole. However, this approach requires to determine the range of firms which are obliged to contribute to the fund. This often makes the introduction of a licensing system necessary. It is important that such a licensing system does not create entry barriers for potential competitors.

Universal Service Policy in Switzerland

There is no general approach to USOs in Switzerland. Therefore, the definition, funding and procedures differ among different industries. In the following, the universal service policies in telecommunications, postal services, electricity and public transport are briefly described.

Telecommunications

Article 92 par 2 of the Swiss constitution lays down the principles of universal service in telecommunications. It states that the government must assure a sufficient and reasonably priced universal service in every part of Switzerland. Moreover, the services must be priced according to uniform pricing principles. It is up to the government to determine the scope of the universal service and how they are funded.

Until the liberalization of the telecommunications sector in 1998, universal service was funded by cross-subsidies between the services supplied by the public PTT. Revenues from international communications, for example, were used to subsidize the rates of the local telephone service.

The Swiss Telecommunications Act of 1998 introduced new universal service policy. The law defines the services that belong to universal service (see appendix). The scope of universal services is subject to periodic review by the government, which adopts changes according to social and economic needs as well as technological development. As of the beginning of 2003, the government extended the

scope of universal service to include digital access (such as ISDN or equivalent). Further changes refer to the provision of public pay phones.

The act mandated Swisscom, the former monopoly operator, to provide universal service throughout the country for a period of five years after without reimbursement. Beginning in 2003, a universal service license is periodically put to tender based on principles of objectivity, non-discrimination and transparency. If the tender reveals that investments necessary to provide universal service cannot be recovered within the usual period of time, then the firm with the best offer receives an investment contribution along with the universal service license. These investment contributions are financed by a special fund which is fed by periodic license fees for the right to offer services. These license fees are allocated proportionally to the turnover subject to the value-added tax among the licensed operators. If no suitable candidate for a universal service license can be found, the regulatory authority can order any license holder to supply universal service in exchange to an investment contribution.

The renewal of the universal service license for the time period between 2003 and 2007 marked a first test for the new universal service policy. Swisscom, the former monopoly operator, applied as the only candidate for this license. Swisscom did not apply for an investment contribution along with its universal service license.

The Swiss experience shows that even several years after liberalization, it may be difficult to find alternative suppliers which are capable of supplying universal service throughout the country. Also, the fact that Swisscom did not request for an investment contribution, indicate that the costs of providing universal may not be exorbitant or that there are substantial benefits associated with providing universal service.

The Swiss Telecommunications Act is currently being revised. The revision includes some improvements to the universal service regime. The new law extends the obligation to contribute to the universal service fund to all telecommunications operators in case that investment contributions must be paid (currently, only licensed operators must contribute to the fund). Moreover, in order to increase the probability that alternative suppliers candidate for the universal service license, the universal service license may be divided into several geographic areas and be attributed to different network operators. Finally, the regulatory authority may impose the obligation to provide universal service upon one or several operators without a tender if such a tender would not take place under competitive conditions.

Postal Services

Similar to the telecommunications sector, the Swiss constitution stipulates that the government must assure the provision of universal service throughout the country which are priced according to uniform pricing principles.

The Swiss post was reorganized in 1998. The Postal Act of 1998 introduced competition for a limited range of services and contains provision on the supply of universal service. The act also determines the principles for funding USOs. The universal service consists of "reserved" and "non-reserved" services. Reserved services are services for which the Swiss Post is granted a monopoly (postal services up to 2 kg).³ The Swiss Post must also supply non-reserved services (postal services between 2 and 20 kg and payment services), but there may be competition in these segments. The Swiss Post can, but must not, supply additional services in competition to other suppliers. In a recent revision of the Postal Act, the universal service has been extended to the provision of an area-wide network of post offices.

³ Parcel post will be completely liberalized as of 2004. For letter post, in 2006 the range of reserved services will be reduced to letters up to 100 g.

According to the Act, universal service are to be financed by revenues from reserved services, non-reserved services and services supplied in competition (cross-subsidization) and through increases in efficiency. If the Post can prove that these measures are not sufficient to cover the cost of universal service, the Act allows for funding through fees levied from competitors. Public transfers are excluded. So far, the Swiss Post was able to cover the costs of universal service without any compensation.

Electricity

In contrast to telecommunications and postal services, there is no national universal service policy in the electricity sector. For historic reasons, each canton⁴ is responsible for the supply of electricity on its territory. The procedures, content and scope of universal service obligations differ among the 26 cantons of Switzerland. Some cantons have provisions on the obligation to attach new members, obligations to supply, uniform pricing principles, security of supply etc. in their laws.

In most cantons, the laws require a secure, sufficient, area-wide and economical supply of electricity. Moreover, most cantons mandate the suppliers to connect to final users and to apply uniform prices.

In September 2002, the liberalization of the Swiss electricity sector was rejected in a popular vote. According to a study of the Swiss Federal Office of Energy (SFOE), considerations on universal service and security of supply were not the decisive factors for the rejection, although they played a certain role.⁵ According to the study, the fact that the final users did not expect to directly benefit from the liberalization provided the most important reason for the rejection.

According to a recent decision by the Federal Court, the rejection of the liberalization of the Swiss electricity sector does not prevent the application of the competition law, however.⁶

Railways

The Swiss Federal Railways are being reorganized in several steps. In 1996, a new system for funding universal service in passenger traffic has been introduced. Every year, the Federation and the Cantons put their demands for universal services (infrastructure and operation) to tender, both nationally and internationally. Providers of universal services are compensated for the uncovered costs of these services. In 2001, the Federation and the cantons paid financial compensations in the amount of CHF 4.45 billion (EUR 2.95 billion) for universal services in public transport.

Conclusions

Several trends in Switzerland's universal service policy can be identified. In recent years, there has been a shift from monopoly funding of USOs through cross-subsidies towards compensations through public transfers (general tax) and fees levied from market participants. Also, there has been a trend to increase transparency and to explicitly state the objectives, scope and funding of USOs in the law.

⁴ "State" of the Swiss Confederation.

⁵ SFOE (2003): Analyse des Meinungs- und Entscheidungsprozesses zum Elektrizitätsmarktgesetz, April 2003.

⁶ A request for an exceptional authorization on the grounds of compelling public interests is currently pending with the government in this matter.

Switzerland's experience with USOs suggest that in most sectors, the costs of universal services do not seem exorbitant. Only in public transport, significant compensations for universal service costs have been remunerated.

From the competition point of view, it is essential that the procedures to define, allocate and fund USOs are competitively neutral, transparent and do not create market entry barriers for potential competitors.

APPENDIX: OVERVIEW OF USOS IN SWITZERLAND

<i>Industry</i>	<i>Legal basis for USOs</i>	<i>Definition of USOs</i>	<i>Funding of USOs</i>
Telecommunications	Art. 92 II of the Swiss Constitution, Telecommunications Act of 1998	<ul style="list-style-type: none"> • voice telephony, including data transmission over voice lines; • access to emergency services; • public pay phones; • access to Swiss participation directories of public telephony; • switching services for hearing-impaired participants; • switching services for partially sighted and blind participants. 	cross-subsidization (fees of market participants) ^{*)}
Postal services	Art. 92 II of the Swiss Constitution, Postal Act of 1998	<p>reserved service (monopoly):^{**)} delivery of mailings up to 2 kg</p> <p>non-reserved services (competition): delivery of mailings between 2 and 20 kg, transport of journals and newspapers, payment services</p>	cross-subsidization (fees of market participants) ^{*)}
Electricity	Cantonal laws	area-wide network of post offices Most cantons require secure, sufficient, area-wide and economical supply to the whole population at equal terms.	cross-subsidization
Railways	Railways Act of 1958	Orders by the Federation and the cantons for local and national traffic, freight traffic and infrastructure.	public transfers

^{*)} The law provides for the possibility of funding USOs through fees levied from market participants.

^{**) will be} Parcel post will be completely liberalized as of 2004. For letter post, in 2006 the range of reserved services reduced to letters up to 100 g.

UNITED STATES

I. Introduction¹

In response to the “Guide for Country Submissions” for the 13 October, 2003 *Roundtable on Non-Commercial Service Obligations and Liberalization*, below we discuss redistribution or “universal service” practices in three U.S. industries: telecommunications, electricity, and postal services. All three industries have undergone at least a degree of liberalization with respect to entry into certain vertical segments and complementary products. We address both historical practices and the interactions between liberalization and redistribution practices in these industries. Much of the experience with market liberalization is recent and evolving. Established economic principles provide a well-developed context in which to consider this still evolving experience.

At present, the three industry sectors are at very different levels of privatization and liberalization. In the electricity sector, the vast majority of assets are and have been in private hands, but these firms were vertically integrated and subject to cost-based rate regulation at both the retail and wholesale level. Over the past decade, regulatory reform has resulted in substantial unbundling of generation from transmission and distribution. Competition in wholesale generation is still a work in progress, but significant strides have been made. Transmission and generation remain regulated, but control of transmission access and protocols is being transferred to regional transmission organizations with less incentive to discriminate against independent generators seeking access to transmission. Sixteen of the fifty states have customer choice programs at the retail level. These too are a work in progress.

In the postal sector, the federal government remains the statutorily protected monopoly provider for non-expedited letters. Various postal reform proposals have recently been made by a Presidential Commission designed to increase efficiency and improve regulatory oversight. Outside of the core pickup and delivery functions for non-expedited letters, competition is much more intense. In package and overnight delivery, private firms have been allowed to compete and have taken most of the business-to-business and business-to-consumer traffic away from the U.S. Postal Service. In pre-delivery sorting, mail processing, and transportation of mail, customers and third-party private printing and sorting firms have largely displaced the USPS in return for postal worksharing discounts. The USPS has also contracted out a portion of rural delivery routes.

Local telephone exchange services were traditionally provided by private, franchised monopolies, with approximately 80 percent of local lines owned and serviced by AT&T. Long-distance service effectively was opened to competition in 1984 when AT&T’s local operating companies were divested and required to offer equal access to all long-distance providers. By 2002, AT&T’s rivals earned about 65 percent of switched long-distance revenues. The Telecommunications Act of 1996 voided legal barriers to

¹ These materials, organized by Kirin Duwadi, Ph.D., Economist, U.S. Federal Communications Commission, (kduwadi@fcc.gov); John Henly, Ph.D., Economist, U.S. Department of Justice, (john.henly@usdoj.gov); and John C. Hilke, Ph.D., Economist and Electricity Project Coordinator, U.S. Federal Trade Commission, (jhilke@ftc.gov), reflect current US practice, but should not be construed to hold any of the FCC, DOJ, FTC or any other U.S. government entity to a prescribed future course of conduct.

local exchange competition and required incumbent providers of exchange services to interconnect their networks with competitors, unbundle those elements of their networks that competitors needed to overcome significant cost or service impairments, and make retail services available at wholesale prices for resale by competitors. Legal challenges and the questionable incentives for the major players to cooperate with one another slowed implementation, and only over the last two years has the FCC found most markets to be open to competition.

These comments are organized as follows: Section II contains recommendations and comments that have applicability across most industries that historically have been subject to service obligations, pricing practices or other programs oriented toward redistribution. Sections III, IV, and V examine these practices in the electricity, postal, and telecommunications industries, respectively.

II. Comments of General Applicability

“Universal service” programs are complex political products. The implicit funding and disbursement methods that historically have characterized “universal service” programs, and often still do, make it difficult for contributors and beneficiaries alike to know with precision how they are affected by the programs, and in many cases, whether they are a net beneficiary or contributor. Regulators seldom study, or publicize, the actual effects of such programs on distribution, penetration, or economic efficiency. Traditionally, these programs have been shielded from a degree of critical scrutiny by the murky cost structure of the regulated monopoly firm.

Impact of Liberalization

Where efficient competition is possible, liberalization eventually will strip away the funding from implicitly financed redistribution programs because entrants will offer lower-priced service to the high-margin customers that traditionally provided funding. Alternative funding mechanisms, consistent with competition, become necessary to the extent that pricing structures inconsistent with market-based pricing are to be maintained. In the United States the recent approach under liberalization usually has been to move toward explicit funding of distributional goals. Fees and taxes² are levied on entrants and the incumbent alike to the extent they provide the services designated as sources of funding.³

Liberalization may also call for more explicit and competitively neutral ways of distributing benefits. Entrants may turn out to be the most efficient suppliers of goods to beneficiaries, or both entrants and incumbents may need to take advantage of scope economies between subsidized goods or customers and others. Portable subsidies – subsidies that go to the qualified firm that sells an eligible service to an eligible customer regardless of the firm’s identity or technology – represent one explicit and competitively neutral approach to paying benefits anticipated under U.S. telecommunication’s law.⁴

² We use the terms “fees” and “taxes” interchangeably here whether levied by a regulator or another body. Regardless of who levies the amount, if a fee or tax forces price away from marginal cost, the effect, depending on the elasticities of demand, is to distort consumption and create deadweight losses.

³ A second approach, where a legal or de facto monopoly still exists on a service, or on a critical input to the service, is to permit part of the value-added to be provided competitively while the monopolist continues to provide the critical input or service at a price high enough to fund redistribution programs. Global price-caps and avoided-cost pricing or ECPR are examples. This is closer to the approach taken with postal services in the United States.

⁴ Another approach to benefits is to procure certain universal services by auction where ex post competition is not possible.

The prospect of increased transparency under competition has created political difficulties for regulators who must more explicitly determine who gains and who loses. Where this has had an effect on the level of transfers, as it has in electricity and increasingly in telecommunications, the impact generally has been to reduce the size of redistribution programs or the amount of resources transferred.⁵ Although politically wrenching, the closer scrutiny also can be seen as a healthy constraint on public spending. Studies of implicit subsidies in regulated industries in the U.S. typically have found substantial economic efficiency losses associated with regulated pricing structures, and/or observed impacts and regulatory behaviors that are hard to defend as part of a consistent approach to welfare maximization. It is broadly consistent with the public choice literature in economics that the cost of obtaining information on the effects of policies affects influences on the regulatory process.

Traditional Terms Lack Precise Meaning and Contribute to Confused Policy Discussion

Three terms often used in the context of distributing the costs and benefits of utility services – “universal service,” “noncommercial service,” and “universal service obligations” – lack precise meaning. In the U.S., the term “universal service” is applied to programs and rate designs that allocate utility services among customers, traditionally by setting prices and service levels so that a utility delivers a targeted service to some customers that it would not provide them voluntarily at the price they pay for it without an additional source of support. Today, an *explicit* additional source of support may or may not exist. In practice, whether a particular “universal service” program or price structure actually increases the customer penetration of a targeted service is an empirical matter. (*E.g.*, some academic studies in telecommunications have come to the opposite conclusion with respect to basic aspects of rate design sometimes claimed to increase penetration.)

Although firms may not voluntarily provide the targeted services in question at prices that are set below cost, it does not follow that targeted customers would not buy them or firms would not provide them at prices that did cover economic cost. A number of products delivered as “noncommercial services” likely are “noncommercial” only because their prices are set below cost. Most “noncommercial services” have not been subjected, in modern times, to a market test to determine whether in fact they are “commercial services” that customers would buy, and firms would deliver, if priced at economic cost.⁶

“Universal service obligations” that require a provider to supply some service at a price less than cost are not a *necessary* ingredient to redistribution programs, or government procurement programs generally, for that matter. It is useful to consider a wider set of possible redistribution programs since requiring firms to trade at below cost prices is likely to limit efficiency in a wide range of settings, and particularly if consumer choice, potentially augmented by portable subsidies, could discipline the market. The presumption should be in favor of voluntary trading unless strong evidence shows this to be inferior.

⁵ In many instances, the size of these programs inadvertently grew beyond the original expectations of proponents since the size and growth of the programs was not transparent. Liberalization served in these cases as an opportunity for public officials to revisit policy areas that had been relatively dormant for many years.

⁶ The relative success of privately supplied mobile services, normally without universal service funding, is at least a cautionary tale about the impact of some wireline pricing practices designed with the politics of distribution, not economic cost, in mind. In much of the developing world state owned telcos provided residential wireline service that was administratively rationed, far from universal, and sold at prices held below cost by the politics of distribution. Below-cost prices did not provide a sufficient source of investment capital and service to permit the many people willing to buy phone service at economic cost to do so. Many of these people in recent years have purchased unregulated or loosely regulated wireless services that are available at market prices that provide a return sufficient for service expansion. In these circumstances market prices do more to increase penetration than those that are held artificially low.

In the United States, the Telecommunications Act of 1996 called for universal service payments that, among other things, were “specific” and “sufficient.”

Additional Comments

- *Redistribution programs can be constructed that are compatible with efficient production under competition.* Taxation and social welfare transfers among citizens normally are compatible with market production under competition. Similarly, redistribution programs for the traditional utility industries can be compatible with market competition in these industries under liberalized entry. The key ingredients are establishing a competitively neutral and efficient source of funding, and, to the extent feasible, competitively neutral and efficient distribution of benefits. Competitively neutral funding means that the incidence of “taxation” falls on specified products, or specified products delivered to certain customers, independent of the identity of the firm or technology used in providing them, so as not to distort the costs of competing firms. Competitively neutral distribution of benefits means that benefits are available when specified products are delivered to designated customers, independent of the identity of the firm or technology used in providing them, so as not to distort the costs or revenues of competing firms. This approach attempts to preserve the incentives and discipline imparted by customer choice and voluntary provision of goods by providers. Competitively neutral sources of funds can be general taxation, fixed subscription fees, or usage fees, although the efficiency with which funds are raised will vary by source and circumstance.
- *The greater transparency of redistribution under liberalization and competition may result in changes in program impact or reductions in the amounts transferred among customer groups.* Greater transparency is necessary in a competitive environment because competitors will undercut the margins on products that provided implicit funding unless fundraising is moved to the retail level or competitors are also required to contribute. More transparency will change the politics of distribution as constituencies become more aware of the costs, benefits and tax incidence of programs. The experience in the United States is that programs, in effect, were reduced in size in the electric industry, and a number of states have rebalanced rates to more closely reflect costs of service in telephone services, as these industries have been liberalized.
- *Redistribution programs in industries with network externalities may fail to realize the theoretical potential to increase economic efficiency.* The theoretical potential for efficiency gains exists if customers, who would not otherwise do so, use a network as a result of a subsidy and thus provide benefits to other users of the network. (For example a student with a phone provides benefits to her parents who call her.) It is difficult to realize such benefits because raising funds to provide a subsidy typically involves an efficiency cost and also because programs seldom target subsidy benefits only or primarily to those who would not otherwise subscribe. (In the case of the hypothetical student, for example, she might otherwise use phone service purchased by her parents, a university, a wireless connection she purchased herself, or a connection shared with housemates.)

In the U.S., traditional universal service programs in telecommunications were funded in significant part from elastically demanded products such as access for long distance services and value-added features. This funding substantially and inefficiently reduced demand for these services. Benefits were broadly targeted, with most subsidized individuals likely to be on the phone network in any case. Most of the subsidy effectively went to subscription, a very inelastically demanded product. Some have estimated that the effect of the long-distance to local subscription transfer has been not only reduced efficiency, but reduced telephone penetration as well. Thus the efficiency effects of actual programs, even

in network industries, can, on balance, run counter to potential benefits. Others have noted that, historically, it is the failure to pay high long distance bills that often results in disconnection of service.

This experience suggests comparing the intended and actual results of a program. If it can be shown that customers that are not directly subsidized enjoy significant benefits from network externalities because subsidies increase the number of other customers on the network with whom they interact, programs that increase the number of users of the network can make sense at the right cost. However, where the effect is redistribution without externalities, cash benefits that recipients can use either for phone service or other products are likely to be valued more highly by the recipients who may prefer to purchase a different product.

- *The fact that market prices under competition or liberalization are not the same as prices under regulation or state ownership is not necessarily a criticism of the prices produced by competition or liberalization.* Price structures of state and regulated monopolies are often economically inefficient. More generally, when crafting redistribution programs for a liberalized entry environment, it makes sense to more deliberately and explicitly consider deadweight losses, the relative welfare weights among customers they may imply, and the consistency of these weights with other social programs. Welfare maximization means relative welfare weights attached to individuals should be the same across different industries and different programs – if it costs \$2 to transfer \$1 from Joe to Sam in the electric industry, then, other things equal, it should also cost \$2 to transfer \$1 from Joe to Sam in the telecommunications industry and in the general tax system. Otherwise there is a less costly way to make Sam better off.
- *Obligations to serve customers at below-cost prices normally eliminate competition for those customers or eliminate competition for some of the value-added.* Opportunities to compete at the retail level in electricity markets were substantially eliminated in the U.S., in areas where provider of last resort (POLR) rates were set below cost. Facilities-based providers of telephony services have been slow to sink investments to compete to serve the residential customers of incumbents who are obligated by state regulators to serve these customers at rates that can be below cost. In addition to interfering with price competition, placing obligations to serve large service territories is likely to raise entry barriers.

An obligation to serve can have some merit in certain cases where regulators do not understand customer-to-customer cost of service variations nearly as well as providers do in areas where subsidized service is to be provided. If the regulator truly insists on a uniform below-cost price, it may lack sufficient cost information to specify the set of explicit and sufficient subsidies that produce a uniform price. Thus, under monopoly with traditional price regulation, the obligation to serve may necessarily be an obligation to serve some at a below-cost price. Under competition, and with no firm having an obligation to serve, prices will follow costs, as modified by subsidies, to the extent that providers find that distinguishing cost differences is cheap enough to justify the benefits.

- *Choosing an appropriate source of funding for programs affects efficiency in production and consumption (i.e., both technical and allocative efficiency).*
 - Taxing elastically demanded products tends to be socially costly because, other things equal, it distorts consumption more than does taxing inelastically demanded products. In the industries discussed below, demand for subscription tends to be inelastic and demand for utilization is relatively elastic.

- The set of products available for taxation matters. In general, broadening the set of products that may be taxed will increase the efficiency with which funds can be raised. (Of course if there are sufficient perfectly inelastic demands left to be exploited, increasing taxes on additional elastically demanded products is not efficient.)
- The availability and use of general revenues for funding may increase allocative efficiency in many cases. A possible countervailing factor is that cost discipline may increase when a firm must cover costs entirely with its own revenues. This is one reason why subsidies from the state treasury to state monopolies have been reduced in many cases. This argument may be less compelling where liberalization produces an environment in which competition effectively disciplines costs.
- Political economy is also likely to be affected by the source of funds. The visibility of taxes, and the understanding of the costs they impose, varies with the source of taxation.
- Access inputs provided by the incumbent are often used as a source of funding for redistribution. Even if an attempt is made to tax access inputs in competitively neutral fashion (*i.e.*, taxed equally whether used by incumbent or competitor), production is likely to be distorted if competitors have some ability to bypass these inputs or reduce their proportion in final services (*i.e.*, if variable proportions technology is used.)
- *Overbroad targeting of in-kind benefits can carry a large efficiency cost.* First, the deadweight burden of taxation, to a rough approximation, increases in proportion to the square of the (per unit) tax, making bigger programs disproportionately costly. Second, a directed subsidy, by reducing price below cost, can encourage excessive consumption. The increase in consumption of subsidized product that a customer engages in due to the subsidy is worth less to that customer than the alternative products that she could purchase with the same resources. Only where the value of that consumption to *other* consumers (due to externalities), or to *other* citizens (in some other way) more than makes up for this difference, is net value added by subsidizing these customers.
- *Where competition to provide universal service benefits is feasible, it may have efficiency advantages.* The incumbent may not turn out to be the lowest cost provider of universal services, or provide goods of the right quality. Indeed, even if the incumbent remains the lowest cost provider, competition may drive down the incumbent's cost. Competition for other, unsubsidized, services in the industry may be affected by the ability of competitors to take advantage of scope economies with universal service products. Customers may choose to take service from a competing technology that turns out to be more appropriate.
- *The costs of redistribution programs are likely to be reduced if subsidies do not depend on the technology by which the service is delivered.* This is most likely to result in the most cost-effective service, particularly if customers are allowed to choose their provider.

III. Electricity

Electricity Sector Background Notes

Although the responses here are directed largely to retail electric sector liberalization, many of the same issues and experiences also apply to liberalization of the retail natural gas sector. Further, in many areas of the U.S., the electricity and natural gas retail distribution companies are the same entity.

Liberalization of the electricity sector at the retail level is largely within the jurisdiction of state regulators and legislatures. Less than half of the states have implemented retail competition programs in the electric power sector. Many state liberalization programs continue to be in a transition phase. Most states undertaking liberalization found that incumbent private utilities would experience stranded costs as a result of liberalization. Stranded costs are the difference between the stream of income for the utility under regulation and the stream of income it is likely to experience under liberalization. States generally felt obligated (under the theory of regulatory contract) to levy fees to pay back the stranded costs to regulated utilities. The transition period is generally defined by a state as the time during which fees are being assessed to recover the stranded costs of utilities in the state.⁷

Often the transition period or stranded cost recovery period is accompanied by a government requirement that the incumbent distribution utility offer retail electricity at fixed rates or at regulated rates to customers that do not select a retail marketer. This service for non-choosing retail customers is typically called provider of last resort (POLR) service and is usually available to all classes of retail customers. The fixed rates often associated with the retail service supplied by the distribution utility arose from the political agreements reached to liberalize the sector and to pay for the stranded costs of regulated private utilities.

When POLR rates are fixed, they do not reflect ongoing changes in wholesale prices of electricity. Between 2000 and the present, wholesale electricity prices increased enough during some periods of time to make entry and continued operation of retail marketers unprofitable in states with fixed POLR prices. Consequently, both competition between retail marketers and customer switching away from POLR service in the states with liberalization policies has been less than expected. The most successful retail marketers in this environment have been the suppliers of Agreen@ power for which retail customers expect to pay a premium over POLR rates.

Wide differences in the approaches used by various states have resulted in wide differences in competition and switching behavior. The well-known problems associated with California's retail and wholesale electricity liberalization program⁸ have discouraged other states from liberalizing. In 2003, some renewed progress has been reported in state liberalization programs.⁹ In particular, Texas has moved forward with retail competition and initial results are quite encouraging. State decisions to adjust prices for POLR service to better reflect wholesale prices have revived entry and expansion efforts of retail marketers and the interest of consumers in switching away from POLR service in several states where retail competition was faltering.

In general, the proportion of customers switching retail marketers has been highest among large industrial and commercial customers and lowest among residential customers.

Liberalization of the electricity sector at the wholesale level is largely under the jurisdiction of the Federal Energy Regulatory Commission (FERC). FERC's reform efforts continue toward the goal of

⁷ Issues in state liberalization programs are discussed in the FTC staff report: Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, FTC (September 2001). In response to concerns about the electricity situation in California, several states with liberalization programs have extended the transition period and its associated regulation of POLR service prices beyond the period required for stranded cost recovery.

⁸ See, for example, John C. Hilke and Michael Wise, AWho Turned Out the Lights? Competition and California's Power Crisis, @ Antitrust 15:3 (Summer 2001), pp. 76 to 81.

⁹ The Center for the Advancement of Energy Markets (CAEM) publishes the ARed Index@ ranking and comparing the elements in retail electricity liberalization programs of the states and some foreign jurisdictions.

establishing independent grid operators across the country. Substantial opposition from some state regulators and vertically integrated utilities has slowed the pace of reform at the national level. As in the retail portion of the sector, events in California have undermined confidence in liberalization policies at the wholesale level.

Responses to Questions (Electricity Sector)

Q: Please list the primary telecommunications, post, transport and electricity services that are covered by non-commercial service obligations.

In the electric power sector, the primary existing non-commercial service obligations involve subsidies or protective terms-of-service for low-income households.¹⁰ These policies generally are implemented at the state or local government level because jurisdiction over retail electricity sales and marketing is retained by the states.¹¹ Some of these programs are administered by the states with funding from the federal government. The non-commercial policy obligations include various combinations of reduced rates, explicit subsidies, subsidies for improved insulation and other weather-proofing, prohibitions against discontinuing service during the winter (and/or summer) when extreme temperatures pose a health risk, and arrangements for a Provider-of-last-resort@ (POLR) service for customers that cannot or have not reached an agreement with an independent retail marketer.¹² POLR service itself might be interpreted as a non-commercial service obligation when the price of POLR service makes it unremunerative, but another interpretation is that POLR service is a long-term contractual obligation that turned out to be a bad risk for the suppliers involved. All of these policies except POLR service were in place before liberalization and most have been continued to various degrees under liberalization.

In the past, particularly during the Great Depression, the federal government pursued large-scale regional development and rural electrification programs. Under these programs, government grants (both federal and state) and loans with below-market interest rates financed rural distribution systems and hydroelectric dams, for example, in areas that private investors had not found to be attractive.¹³ Legacies of these programs include the Tennessee Valley Authority, the Bonneville Power Administration, the Salt River Project, and the Power Authority of the State of New York. The government also fostered the development of numerous rural electric cooperatives under its rural electrification program.

¹⁰ Eligibility is generally based on income with the cut off being 150% of the government-determined poverty level.

¹¹ An instructive insight into state decisions on USO issues is the June 12, 2002, AReport of the Universal Service Working Group@ in Maryland, In the Matter of the Electric Universal Service Program, Before the Public Service Commission of Maryland, Case No. 8903.

¹² The public programs of twelve liberalizing states are described in Appendix A of the FTC Staff Report Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, FTC (September 2001). For an early summary of state legislation and state commission policy regarding the scope and design of universal service programs in states with liberalized retail customer choice programs, see Barbara R. Alexander, ASummary of State Electric Restructuring Legislation: Universal Service Provisions,@ unpublished (January 1, 1998), available upon e-mail request from jhilke@ftc.gov.

¹³ The Rural Electrification Act was passed by Congress in 1936 to provide low-cost loans to provide wiring and to help rural homes and farms acquire electrical and plumbing appliances and equipment. These programs are now located in the Department of Agriculture, Rural Utilities Service unit. Alt helps rural America finance electric, telecommunications, and water and wastewater projects, and makes loans and grants for rural distant learning and telemedicine projects.@ There is also a National Rural Utilities Cooperative Finance Corporation that makes low-cost loans for such projects.

Q: Are there any general government policies towards USOs? ... What services are currently being considered as potential universal service obligations?

Because the retail non-commercial service obligations in the electricity sector are generally under the control of states, there is no uniform policy regarding USOs in the U.S. electric power sector. One state, Maine, has a policy of contracting out for POLR service.¹⁴ Other states have assigned the POLR service to the retail distribution utility.

Q: Have non-commercial service obligations impacted efforts at liberalization? Please discuss how, in liberalizing industries, USOs have been met.

A number of public programs including programs to assist low-income electric power customers have traditionally been lumped together and paid for within regulated, bundled rates.¹⁵ During the liberalization process, revenues for these programs have typically been unbundled from the regulated rates and financed through explicit excise taxes on electric power consumption.

Most commonly, making the payments for these programs explicit has resulted in scaling them back. An exception is consumer education. In most state liberalization programs, substantial customer education programs have accompanied the opening of customer choice programs.

In some states, some of the subsidies have traditionally been financed through charitable giving programs operated by the distribution utilities. This aspect of financing for public programs has not been directly affected by liberalization. By far the most profound decisions and effects linking liberalization with non-commercial service obligations have concerned the pricing of POLR services. Most states undergoing liberalization elected to establish fixed, regulated rates for POLR service that were below the pre-liberalization level and that were not closely related to ongoing changes in wholesale electric power prices. These decisions about POLR service pricing were generally developed by liberalization proponents as a means to increase public support for liberalization. C retail customers realized an immediate benefit from liberalization.

With few exceptions, the state decisions to de-couple retail from wholesale prices have had unforeseen¹⁶ adverse consequences for incumbent firms, entrants, and consumers. In the case of California, the decision to fix retail rates had extremely adverse effects when wholesale prices rose in 2000 and 2001. During this period, California's wholesale prices rose above retail prices, incumbent distribution utilities (the load serving entities) faced bankruptcy, efficient retail marketing entrants could not profitably enter or continue to supply the market, and consumers faced blackouts as supplies shrank while demand continued to grow. Eventually, the state acted to reduce wholesale prices (through long-term contracting) and increase retail prices, but this intervention proved to be a costly policy step as well. While the effects of fixed POLR prices were not as dire in other states (in large part because other states continued to have long-term supply contracts in place for most power supplies, while California did not), lack of entry and low levels of customer switching are common among the states that adopted customer choice programs. Only recently, as wholesale prices have aligned more closely with retail rates, have retail entry and customer switching resumed in the liberalizing states.

¹⁴ FTC Staff Report Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, FTC (September 2001), Appendix A, Maine State Profile.

¹⁵ Other programs included within this bundle of public programs typically have included consumer education programs, research concerning renewable energy sources, insulation subsidization programs, distributed generation pilot programs, and some demand management programs.

¹⁶ Decisions to adopt these policies were taken after several years of declining prices for energy, natural gas in particular.

Another form of interaction between POLR pricing and market liberalization concerns recovery of stranded costs. Stranded costs are costs of an incumbent, vertically integrated utility that are not likely to be recovered under liberalization, but which would have been recovered under traditional regulation of electric utilities (that is the costs were prudently incurred and, therefore, allowed to be included in the rate base). In several states, stranded costs were found to be large. Incumbent utilities offering POLR service may have had incentives and the ability to discourage efficient entry by setting artificially low prices for the energy portion of the retail customers' electricity bills. They could afford to do this because they were allowed to make up for these low energy prices by correspondingly higher billings for stranded cost recovery.¹⁷ Entrants compete against the POLR supplier on the basis of the prices for the energy portion of the bill and do not have access to the compensatory stream of stranded cost payments. Consequently an artificially low energy price for POLR service may exclude efficient entry at little cost to the incumbent firm offering POLR service. This pricing distortion may have contributed to the low entry and switching rates in some states undertaking liberalization.

Q: Have non-commercial service obligations changed with privatisation? Please discuss the role of privatisation in the definition and financing of USO=s.

Privatization has not played a significant role in financing the USO because the vast majority of electricity industry assets are and have been privately owned. The most important changes that have accompanied liberalization have been in the sources of funding for the non-commercial service obligations. As described earlier, in most states with liberalization policies, financing of public programs has become more transparent. Charges for these programs now often appear as separate lines on the customers' electricity bills.

Q: Deciding to make a service a USO. Please explain factors that are considered for deciding whether a service should be a universal service obligation. Are these designations reviewed on a regular basis? If not, why not?

The largest non-commercial service obligation programs (other than POLR service) provide subsidies of various types for electric power consumption by low-income households.¹⁸ The smaller programs such as research on new energy sources and demand-side management programs appear to be associated with a public-goods, externality rationale.

Liberalization has often resulted in reconsideration of these programs. Generally, reexamination of the programs has led to contraction of expenditures on these programs. Prior to the liberalization, these programs were stable or expanding over the years without fundamental reexaminations of the programs. Lack of transparency may have muted concern about the costs of these programs.

There were four principle rationales for instituting POLR service: (1) to avoid the appearance of government forcing customers to pick a new supplier, (2) to avoid customers being cut off if a retail marketer went out of business, (3) to avoid customers being cut off if all retail marketers refused to take the customer because of the customer's credit risk, and (4) to assure that there would be at least one supplier offering service at a rate similar to or below the pre-liberalization rate. Rationales 2 and 3 come closest to the universal service concept.

¹⁷ FTC Staff Report, Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform, FTC (July 2000), Section VII.

¹⁸ One form of subsidy is Alife-line rates@ in which the initial block of power, representing Anecessary consumption@ is priced at a lower rate than subsequent blocks for all residential customers.

Q: State whether universal service access is also considered as an option. For example, with Internet service, a user can go to an Internet café to access the network or stay at home. Staying at home requires access to a computer, which many disadvantaged consumers do not have. Thus universal service access may be preferred, through sharing of common facilities.

To the best of our knowledge, universal access has not been considered sufficient to meet the health and safety concerns that underlie the non-commercial service programs in the electricity sector in the U.S.

Q: Evidence of underprovision. Please state whether there is any evidence that, without USOs, a service would be underprovided and that many people would not choose to purchase the service. What sort of evidence is required to show that an individual service should be subsidized via a USO? Are the subsidies general or targeted at the desired user group that would not receive the service?

We do not know of any systematic indication that affected consumers would fail to spend enough on electricity absent the subsidies to low-income households. However, continued support for these programs may come in part from occasional media coverage of deaths or injuries suffered by poor or elderly customers without electric power during extreme weather conditions or by instances in which such customers have faced choices between hunger and life-threatening heat or cold.

Historically, policies regarding rural electrification have been based on the view that there are positive externalities associated with access to electric power that cause underprovision in high cost areas B namely rural areas.¹⁹ Expansion of electricity use in rural areas under electrification programs at least indicates that some previously unserved customers desired to use electric power.

Continued subsidies in the form of low-interest loans or government loan guarantees are directed primarily at rural electric cooperatives. We know of no evidence about remaining unserved or underserved populations or the significance of ongoing subsidies to maintaining service in low-income rural areas.

To the extent that subsidies do more than internalize positive externalities, they may create incentives that result in inefficient decision about location, activities, and investments. News media attention is sometimes drawn to extreme examples of these inefficient incentives at work.

Q: Entry barriers. Does establishing a USO occur in conjunction with entry restrictions that exclude competitors from part or all of a market? Is the argument based on cream-skimming concerns? If so, is any evidence required that, in the presence of cream-skimming, total industry costs will increase significantly? Are entry barriers less appropriate if an industry is operating inefficiently?

In most states undertaking liberalization, the one and only POLR service provider is designated to be the incumbent distribution utility. Although only one supplier is designated as the POLR supplier, any retail marketer is allowed to offer the same terms as the POLR supplier. POLR service is provided for customers that do not select a retail marketer or have been dropped by their selected retail marketer. If POLR prices are set below costs, there are no incentives for retail marketers to enter or to continue offering service because customers will save money by staying with the POLR supplier. Effectively the POLR price acts as a rate cap unless the retail marketer is offering a differentiated product that can command a higher price.

¹⁹ See, for example, *Electric Utility Industry Restructuring: Issues for Rural America*, [Rural Conditions and Trends](#) 9:30 (a publication of the U.S. Department of Agriculture) and *Rural Electrification: Lessons Learned*, World Bank Group, No. 177, February 2001.

We know of no examples to date in which cream skimming is at issue in POLR service. The POLR provider has always been viewed, as the name suggests, as the supplier for those who are not actively participating in the market.

As mentioned earlier, Maine is an exception with regard to entry incentives for retail marketers because it auctions off POLR service for different classes of customers in different areas of the state.²⁰ Some additional liberalizing states have begun to experiment with bidding out blocks of POLR customers to retail marketers other than the incumbent distribution utility.

An interesting exception to the practice of designating a POLR supplier occurred in the liberalization of natural gas retail sales in the state of Georgia. Under the original Georgia plan, no POLR service provider was designated by the state. Retail customers that did not select an independent retail marketer on their own were assigned one by the state in proportion to the number of customers who had voluntarily selected that retail marketer.²¹

Q: Definition of universal service. The precise definition of a universal service can often play a significant role in determining who can provide the universal service. Some definitions are physical, such as fixed line access to a general telephone network, and other definitions are conceptual, such as a service that allows for the connection of a user to the general telephone network from a fixed location. Sometimes definitions are enshrined in law, and difficult to change, and at other times they are enshrined in regulations, and easier to change. How are services defined in physical or conceptual terms? Are efforts made to define services so that multiple companies could provide them?

Because the major subsidies in the electric power sector aimed specifically at low-income customers are funded explicitly (usually by excise charges), the definition of the obligation does not materially affect other aspects of these markets.

POLR service, on the other hand, materially affects other suppliers. However, it is the price for POLR service, rather than its definition, that has proven to be important.

Q: Selection of universal service provider. The provider of a universal service, such as public phone service, can be selected by legislation, by a regulator, or by a bidding process. Are there any other mechanisms that are used? Generally, how is the provider of a universal service selected? Is the selection based at a national level? Could the selection be based on a narrower geographic level? If the selection were based at a narrower level, would that increase the number of potential providers of the service?

²⁰ Another variation is the system adopted in the state of Massachusetts. Massachusetts offers two forms of POLR service. One is for the original customers that did not select a retail marketer and this service continues to be priced at a regulated rate. The other POLR service in Massachusetts is for customers that have switched back to POLR service from an independent retail marketer. The second service is offered at a price that tracks average wholesale prices in the state. [FTC Staff Report Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, FTC (September 2001), Appendix A, Maine and Massachusetts State Profiles.]

²¹ More recent developments in the Georgia retail natural gas program are discussed in the FTC Staff Comment before the Georgia Public Service Commission, Standards for Determining Whether Natural Gas Prices Are Constrained by Market Forces, @ Docket No. 15640-U, filed April 25, 2003. FTC staff comments are available in chronological order on the U.S. Federal Trade Commission's web site under formal actions, advocacy comments.

Generally the selection of the POLR service provider is determined legislatively or by regulation on a state-by-state basis. In most cases, the POLR service provider is the incumbent distribution utility. Exceptions in Maine and some other liberalizing states were noted previously as was the unique practice in Georgia=s retail natural gas liberalization in which customers who failed to select a retail marketer were assigned to one.

Q: Separation of price from cost. It is often the case that the cost that varies the most between customers is the cost of building a connection to the customer, such as providing the line that carries electricity into a customer=s home. The cost of electricity itself may vary much less, once the initial connection has been made. Thus the distortions that arise from uniform pricing may be greater for the initial connection cost of a network service than for the ongoing provision of that service. Is the physical connection cost in the electricity and telephone industry related to the actual cost of building a connection to a customer? If so, can the customer seek bids from multiple builders of a physical connection, or is there only one provider? If rural customers are given preferential tariffs that do not reflect the cost of serving them, please explain why rural customers are given preference over urban customers.

Policies regarding charges for connecting individual customers to the distribution system vary from state to state. It is important to note that issues about cost of service differences between areas, including differences in average connection costs, have been addressed indirectly in the U.S. by having numerous suppliers each with a separate geographic service territory. Thus cost of service variations such as those caused by different average distances between homes in different service territories, result in different average rates reflecting these cost variations. Distribution system charges are fully regulated at the state level where the distribution firm is a regulated utility. In fact, retail rates vary widely between states and between areas within states.

In many rural areas, the distribution firm is a rural electric cooperative that establishes its own policies regarding connection charges. Most rural cooperatives have prohibitions against discrimination, but these have been interpreted to allow charging extra fees to customers with high-cost connections.²²

Although much discussion about the USO and subsidies focuses on disproportionate benefits for rural customers, a reverse argument can be made regarding costs of transmission services. Concern has arisen in the U.S. that some rural areas located between large urban areas pay transmission costs that

²²

For example in *Lill v. Cavalier Rural Electric Cooperative* [456 N.W. 2d.527 (N.D. 1990)] the court approved charging an extra fee for connecting a customer to the distribution system.

“The Co-op was organized in 1948 under Title 10-13 of the North Dakota Century Code and is financed by the Rural Electrification Administration in Washington D.C. Under North Dakota law, the Co-op is not considered a public utility. Section 49-03-01.5(2), N.D.C.C.2 In addition to the powers granted by the general law governing electric cooperatives, the Co-op had the power to >fix, regulate, and collect rates, fees, rents, or other charges for electrical energy and other facilities, supplies, equipment, or services furnished by it.= Section 10-13-03(8), N.D.C.C. Further, since each electric cooperative is required to be operated without profit to its members, the rates, fees, rents and other charges for electrical energy and for any other facilities, supplies, equipment or services shall be sufficient at all times to (1) >pay all the operating and maintenance expenses necessary or desirable for the prudent conduct of its business and the principal and interest on the obligations issued or assumed by the cooperative in the performance of the purpose for which it was organized= and (2) to create reserves. Section 10-13-05(1)(2), N.D.C.C.

In this case, the evidence reflects that the Co-op would have required a deposit or a minimum length service agreement from any person who desired electrical service to the Lill farmstead due to the high costs of the electrical line installation.@

primarily benefit the urban areas that wheel power back and forth to each other over the lines paid for by rural customers.

In addition to having numerous geographically based suppliers, a number of other mechanisms exist that adjust connection and service charges to the differences in the costs of connection and service for different groups of customers within each distribution utility franchise area. For example, state utility commissions typically establish several classes of retail customers and the regulated rates within a given distribution area have traditionally varied between classes of customers based, in part, on differences in the costs of serving different types of customers in that area. The rate differences that are cost-based persist once distribution service is unbundled from energy charges.²³ However, within a class of customers, hook ups and service fees in developed areas are typically charged at a uniform rate.²⁴ Similarly, where units within a large-scale new construction project are being connected to the distribution system, the developer of the property may be required to pay for some or all of the incremental costs to serve the development. The developer, in turn, passes on these costs in the sales prices of units in the new development.

Q: Benefits to provider of universal service. Does the provider of a universal service receive any explicit payment for the provision of that service? If so, how large are the payments? Must the universal service provider demonstrate that it provides the services at a non-commercial rate?

Where the POLR service provider is explicitly subsidizing consumption by low-income households, it generally receives payments to cover the costs of these subsidies from a fund established by the government for this purpose or it is allowed to include these costs in its rates. To the extent that there are implicit subsidies among rate classes, compensation is implicit in the setting of the price cap structure or revenue requirement. Retail marketers generally do not have a traditional utility's obligation to serve.²⁵

Q: On what basis are costs calculated for USO provision? Are the costs used historical? Are the costs forward-looking? Are models used to estimate the costs? Are these engineering models, as perhaps for telephone and electricity services? Are these process models, as might be appropriate for postal delivery? Is the objective to provided services of a predefined quality at the minimum price? How is the minimum established? Establishing the costs of efficient provision can be a particularly difficult problem with respect to labor inputs. How is the efficient labor cost calculated, if it is different from the actual labor cost?

The subsidies go to individual customers to help pay their electric power bills or to allow lower rates for these customers. The subsidy payments are for a set amount or are based on comparisons between the regulated rates charged for POLR service vs. the rate for low-income customers.

Q: Does the provider receive advantages from providing the universal service? How are benefits of universal service provision evaluated? Are the techniques for evaluating the advantages scientific?

²³ Rate differences between customer classes that are not cost-based come under increased scrutiny when generation is unbundled. Preserving a given value of rate difference when applied to the remaining non-generation part of the electric bill requires much larger (and therefore more noticeable) percentage differences between customer classes. Once energy charges are unbundled and subject to competition, discrimination is less sustainable on that portion of the bill.

²⁴ Some cable and telephone companies have unbundled some aspects of distribution maintenance services. In particular, service maintenance work inside the customers home may be provided under hourly charges unless the customer has elected to pay a monthly service fee for in-home service work.

²⁵ Retail marketers, like other suppliers of services to the public, remain subject to the anti-discrimination laws.

Considerable debate has occurred regarding the interpretation that retail customers attach to POLR service that is provided by the incumbent distribution utility.²⁶ Some contend that customers view the POLR service as the same service that they received prior to the liberalization despite required disclosures indicating that the POLR supplier is an affiliate of the distribution utility and that the distribution utility is not allowed to discriminate against customers of independent marketers. A customer inertia²⁷ stemming from these perceptions may work against customers selecting an independent retail marketer if the incumbent distribution utility had a positive reputation before liberalization. In most states, decision makers have not forced customers to select an independent retail marketer. Some have described a policy of requiring customers to pick an independent retail marketer as government slamming.²⁷

Financing (Electricity Sector)

Q: Are there any general government policies with respect to the financing of USOs? Examples might include internal financing within the firm or financing through general taxation. When the cost of USOs is calculated, are competitors required to participate in its financing? What mechanism is used to calculate the contribution of competitors? If market share is involved, how is each market participant share calculated?

In the electricity sector, liberalization has generally resulted in greater transparency regarding subsidies for low-income customers. Remaining subsidy programs are generally financed through excise taxes on electricity consumption that apply to sales by all retail suppliers.

POLR service rates are regulated rates based either on legislative determinations of the price (i.e., 10% less than the regulated rate prior to liberalization) or an updated cost-based determination.²⁸ Where the POLR rate has fallen below wholesale costs, POLR suppliers have often sought to increase the POLR rates. Such efforts have met with mixed responses from regulators and legislators.

Q: If the universal service provider receives a payment, how is the decision made of whether a universal service will be paid for through general taxation or taxes on users of related services?

Because subsidies for low-income customers were previously imbedded in the regulated rates, there has been a general assumption that these programs will continue to be paid for by taxes on electricity consumption or by charitable giving.

Q: For universal services that are paid for by general taxes, are the costs of rural customers USOs obligations paid by the federal government, regional or local authorities? Might it be more efficient

²⁶ Much of the controversy surrounds use of the distribution utility's name and logo by the provider of POLR service or by another retail marketer affiliated with the distribution utility in that area. For discussion, see the FTC staff report: Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, FTC (September 2001), Chapter V, Section D.4.

²⁷ Slamming occurs when a retail marketer claims that a customer has switched to them, when, in fact, the customer has not requested this switch. States penalize slamming by retail marketers. Some states have allowed switching to an independent retail marketer by aggregations of customers often organized by a local government unit. Effectively, the POLR supplier changes. Such large-scale switching has been prominent in Ohio, for example. Usually switching by aggregations of customers is accompanied by an opt-out provision that allows an individual customer to continue to buy bundled service with the former POLR service provider if the customer explicitly requests this. Relatively few customers opt out of aggregation switches.

²⁸ The state of Maine is an exception. There, POLR service for various groups of customers is bid out periodically by the state's public utility commission.

to allow the local authorities to choose (and subsidize) the level of services than for the federal authorities to do this? Why or why not? What are the problems with local authority payment? What are the benefits?

Subsidies and payment approaches are determined at the state level, since retail electricity prices are within the jurisdiction of the states. States may allow cities or counties to make separate decisions in this regard. Federal subsidies on loans to rural cooperatives are paid from federal funds. One argument in favor of federal decision-making about these subsidies is that the federal government should be able to channel funds to areas with the greatest positive externalities, thus creating the maximum social benefit for any given level of subsidy level. In part, the evaluation on this topic depends upon whether the subsidies are arbitrary redistributions of income or internalizations of positive externalities.

Q: For universal services that are not paid for by general taxes, is internal cross-subsidization a preferred solution for financing universal service? If so, why? Is such a program justified? Would the costs of providing a service with different prices outweigh the benefits?

Although costs have been an input into state decisions about rates for different classes of customers, some observers have found that cross-subsidization across customer classes has taken place in some states or that economically inefficient relative markups across customer classes distorted consumption decisions. Often the direction of cross-subsidization is from commercial and industrial customers to residential customers. The extent to which this constitutes a financing of true universal service, rather than a general redistribution policy, is unclear. Liberalization has generally made such cross-subsidization policies more transparent in the electric power sector because under liberalization, retail marketers generally do not try to charge different rates to similarly situated customers for the energy component of the bill. As a result, a policy that preserves the same amount of discrimination between classes of customers in aggregate, but does so only on the unbundled distribution portion of the bill, will show very large percentage disparities in distribution rates.

Averaging of costs across horizontally similar customers can also result in price discrimination (charging equal prices for services whose costs differ). Such cost averaging can be efficient, however, if the costs of exactly determining the costs of serving specific customers are themselves high.

Q: For services that are subsidized by taxes on users of related services, how are the related services chosen? Is the harm to consumers of related services (through increased taxation and reduced consumption) compared to the benefits for the users of the universal service?

So far, the only related services that may be taxed are those that have traditionally been included in electricity billing statements (e.g. generation, transmission, distribution, marketing, billing), albeit the charges for these related services now appear as separate lines. The economic efficiency impacts of such programs typically are not quantitatively considered.

Q: In some industries, there may be substantial capital investment involved in providing a universal service, especially if physical connections must be built to individual users, as with fixed telephone service and electricity connections. In contrast, in some other industries, such as mail delivery, capital investment may be less critical as an issue. If the universal service provider for an existing service in a given geographic area is changed, what is the appropriate way to deal with stranded capital investment?

All of the connection issues in the electricity sector relate to aspects of the industry that continue to be fully regulated. In this context, changing the POLR provider or the subsidies for low-income customers does not create a stranded cost problem in general.

The stranded cost problems arose from liberalization itself. Many vertically integrated utilities undertook generation investments and signed generation contracts, with the approval of or at the request of regulators, that would not be economical once competition came to these markets. These uneconomic investments and contracts were the source of the large stranded costs in the electric power sector.

Q: Role of competition authority. USOs often create entry barriers or payments from new entrants to incumbents. As a result, such obligations can have a significant impact on competition and the efficient provision of services and some observers might argue that competition authorities should be involved, in at least an advisory capacity, on government decisions related to the provision of universal service obligations. What is your view on the appropriate role of a competition authority with respect to USOs?

The actual role of competition authorities is generally restricted to competition advocacy in the U.S. electric power sector either because the federal sector regulator has jurisdiction or because state decisions that constitute active regulation of an industry are not subject to the antitrust laws.²⁹ Given that so many of the critical decisions in this sector are taken at the state level, it is difficult to envision a greater direct role for the competition authorities in the U.S. until the transition to competitive markets progresses further.

USOs are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted/not accepted that argument? Please describe your main cases.

We know of no relevant cases of this type in the electric power sector.

Industry-Specific Questions (Electricity Sector)

Q: Electricity. Is there a uniform price for building a new physical connection to the customer? Is there a uniform price for electricity across regions with different costs? Can anyone besides the electricity transmission company build such a connection? Is distributed generation encouraged when it is economically reasonable?

Policies about charges for new physical connections differ by state and remain fully regulated. Pricing policies for electricity vary across the country. At the wholesale level, prices typically include both an energy charge and a transmission charge. As a result, differences in generation and transmission charges are generally reflected in prices. Efforts have been undertaken by the Federal Energy Regulatory Commission (FERC) to refine wholesale prices to better reflect the transmission congestion costs. There is an increasing acceptance of locational marginal pricing for transmission.³⁰

Retail rates differ by service territory. In states where the retail rates are bundled and regulated, the rates reflect average costs in the area served by a particular retail distribution utility. Under traditional regulation, historic costs over a year or more are averaged to determine regulated rates in the electricity sector for the next time period. Sometimes there is a fuel price adjustment clause that allows more frequent adjustments to rates. The costs considered in bundled rates include generation, distribution,

²⁹ Immunity to the antitrust laws accorded to petitioning behavior and to state actions have come under scrutiny. See, John T. Delacourt, *The FTC's Noerr-Pennington Task Force: Restoring Rationality to Petitioning Immunity*, @ *Antitrust* 17:3 (Summer 2003), pp. 36-40.

³⁰ At the same time, FERC has sought to reduce artificial differences in electricity costs. For example, FERC has also sought to reduce pancaking of transmission rates under which an additional charge is incurred any time a transmission path crosses from one transmission control area to another.

transmission, billing, and marketing. The range of average retail prices in different states is considerable ranging from slightly more than \$0.04 per kilowatt hour (Idaho) to over \$0.14 per kilowatt hour (Hawaii).³¹ In states where the retail rates have been liberalized, retail marketers are allowed to charge rates that reflect their costs and the extent of retail competition; however, in many states the POLR price acts as a de facto cap on prices for all marketers. As described earlier, the POLR prices were at or below average wholesale prices for much of the past three years. Once POLR service is no longer offered or once POLR prices have been adjusted to reflect the costs of POLR service, competition between retail marketers will determine retail prices in the liberalized states.

FERC proposes to give merchant transmission projects a prominent role in efforts to increase transmission investment. To date, only a few such projects have been started or proposed. Efforts to undertake merchant transmission projects may be inhibited by difficulties in obtaining siting authority for such projects. Further, the potential use of eminent domain power to obtain land for merchant transmission projects is unclear. Without eminent domain authority, the costs of merchant transmission projects may be greater than those for the same project conducted by a distribution utility using eminent domain authority.

Distributed generation connections to the grid or distribution system have been the subject of intense regulatory reform efforts in recent years. Both FERC and the states are working to standardize interconnection procedures for DG. These efforts recently were boosted by issuance of an IEEE standard for connecting small DG units to the distribution system. A remaining issue is the pricing of retail backup service for customers with DG units. Advocates of DG argue that back up services have been priced too high because these prices may not adequately reflect the statistical unlikelihood of simultaneous reliability problems among DG units.

IV. Postal Services

Postal Sector Background Notes

From the Revolutionary War period until 1970, the United States Post Office, the predecessor to the United States Postal Service (USPS), was a cabinet level department of the U.S. government. After 1970 it became an independent establishment of the executive branch charged with financing its own operations and providing postal services to the nation in a business-like manner. The 1970 reforms were enacted in an effort to improve the efficiency of the USPS, facilitate better relations between the USPS and labor unions, and reduce the influence of politics in the provision of postal services. The USPS's nine Governors are appointed by the President with the consent of the Senate. The USPS submits proposed rate changes to an independent Postal Rate Commission (PRC). Members of the PRC are also appointed by the President with the consent of the Senate. Rate changes must be recommended by the PRC, except that by a unanimous vote of the Governors upon finding that the PRC recommendation does not meet the financial needs of the Postal Service, a PRC-recommended decision can be modified to ensure that the statutory break-even requirement is met. The regulatory powers of the PRC are quite limited. It does not generally have authority to question the efficiency of USPS operations; however, it is responsible for issuing advisory opinions on nationwide changes in service. Its primary responsibility is to recommend the prices for different classes of mail. In addition, the USPS's Office of the Inspector General conducts prudency reviews of USPS operations and reports its results to the Board of Governors as well as to the US Congress.

The universal service obligation (USO) of the USPS requires that the Postal Service shall provide prompt, reliable, and efficient services to patrons in all areas and shall render postal services to all

³¹ See the U.S. submission for the October 2002 roundtable (p. 17) on Competition Issues in the Electricity Sector.

communities.³² Congress has also mandated that the Postal Service serve as nearly as practicable the entire population of the United States.³³ Further, the Postal Service is obligated to maintain a maximum degree of postal services to “rural areas, communities, and small towns where post offices are not self-sustaining.”³⁴ To protect small communities from large-scale closings or consolidations of post offices, US federal law stipulates that small post offices cannot be closed “solely for operating at a deficit.” If the Postal Service seeks to close an office, it must provide advance notice to customers and its decision to close the office is subject to appeal to the PRC.³⁵ Federal law also requires that the Postal Service provide at least one class of mail for letters for which the rate “shall be uniform” throughout the United States.³⁶

The USPS is a large enterprise with 2002 revenues in excess of \$66 billion, deliveries in excess of 200 billion pieces, more than 38,000 retail outlets and roughly 730,000 career employees. Almost half of the pieces are First-Class Mail. More than two-thirds of Postal Service expenses are personnel compensation or benefits.³⁷

During the past three years, the USPS has experienced financial difficulties. The most recent rate increase was in excess of inflation.³⁹ Evaluations of these financial difficulties have emphasized three factors. First, USPS labor costs are above market levels and USPS productivity gains have been lower than those in the private sector. Second, demand for First-Class Mail (FCM), the class with one of the highest contributions, is eroding. The USPS projects that as much as 25% of First-Class Mail volume may be lost before the end of the decade. Much of this erosion stems from the increasing use of the Internet.⁴⁰ Third, the downturn in the economy and higher security costs facing the USPS since September 11, 2001, have combined to undermine USPS finances.

³² 39 U.S.C. § 101(a).

³³ 39 U.S.C. § 403(a).

³⁴ 39 U.S.C. § 101(b).

³⁵ 39 U.S.C. § 404(b).

³⁶ 39 U.S.C. § 3623(d).

³⁷ Delivery timeliness for First-Class Mail is measured, but no absolute standard is applied. There are some very limited exceptions to the 6-day per week delivery standard. There are certain additional quality of service obligations placed on the USPS including legal privacy-of-the mails and a ban against fraudulent use of the mails. The USPS has an independent police force to enforce these obligations.

³⁸ U.S. Postal Service 2002 Annual Report; USPS Five Year Strategic Plan (2003).

³⁹ Until recently, there was considerable concern that the USPS had underfunded its pension obligations by more than \$25 billion. At the suggestion of the General Accounting Office, this issue was examined by the Office of Personnel Management (OPM) which determined that, in fact, the statutory requirement establishing pension funding obligations resulted in the USPS instead accelerating payments of its pension liabilities by more than \$70 billion (due largely to an increase in the interest rate applied to its payments during the late 1970s and later years). As a result, the statute establishing USPS pension funding requirements has been changed resulting in a substantial reduction in the Postal Service’s required pension fund contributions during the next forty years. This has alleviated some of the immediate concerns about USPS finances.

⁴⁰ Econometric estimates of the price elasticity of demand for FCM have remained quite stable over time. This stability is one indication that it may still be economically appropriate to evaluate FCM as a separate market.

On July 31, 2003, the President’s Commission on the United States Postal Service delivered a report and recommendations regarding the future of the USPS.⁴¹ Although this report did not recommend privatization of the USPS or alteration of the six-day-per-week delivery, it did recommend strong regulation, efficiency incentives and stronger oversight that may improve USPS finances.

Responses to Questions (Postal Sector)

Q: Please list the primary telecommunications, post, transport and electricity services that are covered by non-commercial service obligations.

US federal law states that the USPS is to receive, transmit, and deliver written and printed matter, parcels, and like materials. As a practical matter, the USO comprises First-Class Mail (consisting mostly of letters), Periodicals (consisting mostly of magazines and newspapers), Standard Mail (consisting mostly of direct mail), Package Services (consisting mostly of parcels), and Express Mail (an expedited, guaranteed service). While the USO is interpreted as applying broadly to all mailed material, the Private Express Statutes, which regulate the Postal Service’s monopoly, do not apply to Periodicals, Package Services, and small portions of First-Class Mail and Standard Mail. In addition, the Postal Service has voluntarily suspended the application of the Private Express Statutes to extremely urgent letters and outbound international mail.⁴²

Q: Are there any general government policies towards USOs? ... What services are currently being considered as potential universal service obligations?

The Postal Reorganization Act (PRA) imposes several obligations upon the Postal Service. Foremost among these are universal service obligations; however, several other social policy obligations are also imposed upon the Postal Service.

The PRA requires that the Postal Service “shall provide prompt, reliable, and efficient services to patrons in all areas and shall render postal services to all communities.”⁴³ Congress has also directed that “[t]he Postal Service shall serve as nearly as practicable the entire population of the United States.”⁴⁴ Further, the Postal Service is obligated to maintain a maximum degree of postal services to “rural areas, communities, and small towns where post offices are not self-sustaining.”⁴⁵ To protect small communities from large-scale closings or consolidations of post offices, the Act stipulates that small post offices cannot be closed “solely for operating at a deficit.”⁴⁶ If the Postal Service seeks to close an office, it must provide advance notice to customers and its decision to close the office is subject to appeal to the PRC.⁴⁷

The PRA also requires that the Postal Service provide a basic letter service at a uniform rate. In particular, the Postal Service must maintain at least one class of mail for letters for which the rate “shall be uniform” throughout the United States.⁴⁸ The Postal Service offers a uniform domestic First-Class Mail

⁴¹ AEmbracing the Future: Making the Tough Choices to Preserve Universal Mail Service.@

⁴² 39 CFR 310, 320 et seq.

⁴³ 39 U.S.C. § 101(a).

⁴⁴ 39 U.S.C. § 403(a).

⁴⁵ 39 U.S.C. § 101(b).

⁴⁶ 39 USC § 101.

⁴⁷ 39 U.S.C. § 404(b).

⁴⁸ 39 U.S.C. § 3623(d).

rate for all mailable articles, currently \$0.37 USD for the first ounce (approximately 28.4 grams), regardless of distance. Uniform rates for First-Class Mail are available for articles weighing 1 pound (0.454 kg.) or less; for articles weighing in excess of 1 pound, the First-Class Mail postage rates become distance-related up through 70 pounds (31.8 kg.).

The Postal Reorganization Act does not quantitatively address the issue of frequency of mail delivery service. Nevertheless, in response to concerns raised in the early 1980s that the Postal Service might deviate from long-standing policies, annual postal appropriations bills since that time routinely have required that six-day-a-week delivery continue at not less than the 1983 level.

Other obligations imposed upon the Postal Service are designed to achieve social policy objectives. The PRA establishes that the Postal Service must offer qualified nonprofit organizations reduced rates for mailing advertising matter, periodicals, and newspapers. Books, educational materials, sound recordings, and films must be carried at uniform rates.⁴⁹ Library Mail is also entitled to preferred rates. In addition, the Act entitles blind persons and certain members of the armed forces to mail articles free of charge.⁵⁰ The PRA further directs the PRC to consider the educational, cultural, social, and informational value (“ECSI value”) of the mail in setting overhead cost assignments for purposes of rate recommendations.⁵¹ As a consequence, mail matter having a high “ECSI value”, such as Periodicals, has traditionally received relatively low overhead cost burdens, which have contributed to favorable rates for Periodicals.

The USPS has other social obligations as well. For example, in recent years, Congress has directed the Postal Service to issue additional “semipostal” stamps⁵² with all revenue earned through sale of these semipostal stamps exceeding the current First-Class Mail, first-ounce postage rate being donated to other governmental institutions for benefiting various charitable causes, including breast cancer research, elimination of domestic violence, and the families of 9/11 emergency services personnel. The USPS also offers other governmental services, such as passport applications and selective service registration, and must satisfy certain social policies in procurement and other contexts.

Q: Have non-commercial service obligations impacted efforts at liberalization? Please discuss how, in liberalizing industries, USOs have been met.

The USO has been cited as one of several issues to consider in connection with liberalizing the postal sector in the United States. To date, there has been no consensus on the costs of the USO, or on modifications to the USO that would reduce its costs. However, notwithstanding the USO and the Private Express Statutes, the rate policy of the Postal Service and the Postal Rate Commission has resulted in substantial liberalization of the U.S. postal market. Under the worksharing program, rate incentives are provided for customers (on their own behalf or through third-parties) to prepare, sort, and transport mail closer to its ultimate destination. This program has resulted in the effective privatization of approximately \$15 billion of the postal market.

Q: Have non-commercial service obligations changed with privatization? Please discuss the role of privatization in the definition and financing of USOs.

⁴⁹ 39 U.S.C. §§ 3626, 3683.

⁵⁰ 39 U.S.C. §§ 3401, 3403.

⁵¹ 39 U.S.C. § 3622.

⁵² 39 U.S.C. §§ 414, 416.

“Privatization” has not occurred explicitly in the postal sector. Several developments have been of interest, however. First, in 1979, the Postal Service promulgated suspensions to enforcement of the general provisions of the Private Express Statutes (PES)⁵³ thereby allowing private carriage of “extremely urgent” letters.⁵⁴ This suspension opened the expedited document delivery market to private competitors. As a result, private suppliers have reduced the share of the expedited service market supplied by the USPS. United Parcel Service and Federal Express are two of the most prominent suppliers that displaced the USPS in this segment of mail service. Second, private companies have expanded their share of package delivery, which was never covered by the Private Express Statutes.⁵⁵ Third, the USPS workshare program is arguably one of the most significant forms of “quiet” liberalization in the world.⁵⁶ Worksharing is an extensive program allowing discounts to customers that perform certain functions that the USPS would otherwise have to perform.⁵⁷ Numerous major customers obtain rate incentives or worksharing discounts by pre-sorting their mail and delivering the pre-sorted mail to USPS processing centers. The USPS has a limited program of contracting out for delivery services in rural areas.⁵⁸ Worksharing has taken place with very little political controversy because it did not fundamentally affect the USO. A very large portion of total mail volume is eligible for one or more workshare discounts. Worksharing has not directly affected the USO.

⁵³ In general, the Private Express Statutes (PES), 18 U.S.C. §§ 1693-1699; 39 U.S.C. §§ 601-606, make it unlawful for any entity other than the Postal Service to send or carry letters over post routes for compensation unless postage on the matter carried by private carrier is paid in an amount equivalent to the applicable postage, or the carriage qualifies for an exception or suspension. Thus, private carriage of letters is not prohibited, although, in many circumstances, the PES make private carriage of nonurgent letters economically disadvantageous. For all items, including those that are not considered letters, such as merchandise, newspapers, and periodicals, private carriers may accept and deliver such items, except that, under a provision known as “the mailbox rule,” delivery must be effected through means that do not involve access to mailboxes or post office boxes in Postal Service retail units.

⁵⁴ 39 C.F.R. § 320.6. The President's Commission noted that "some question whether the Postal Service has the authority to define and alter the scope of its own monopoly." President's Commission on the USPS at 24. The Commission also recommended that responsibility for regulating the monopoly should reside with an independent regulatory board. *Id.*

⁵⁵ Taking U.S. package delivery as a whole, the USPS share is estimated to be less than 20%. See Alan Robinson, “Competition Within the United States Parcel Delivery Market,” Direct Communications Group, Silver Spring, Maryland, who puts the USPS share of parcel delivery at 16 %. See also Rick Callister, Mark Killian, Haicheng Li, and Reiji Tarasaka, “The Changing Competitive Landscape of the United States Postal Service,” available at: <http://www.stanford.edu/~terasaka/My%20Webs/projectindex.htm> (18 Dec. 2001).

⁵⁶ The estimated avoided cost for the USPS in 1999 was \$15.3 billion. See Robert Cohen, Matthew Robinson, John Waller and Spyros Xenakis, “The Cost of Universal Service in the U.S. and Its Impact on Competition,” in Proceedings of the Wissenschaftliches Institut für Kommunikationsdienste GmbH (WIK) 7th Koenigswinter Seminar on Postal Economics “Contestability and Barriers to Entry in Postal Markets,” February 17-19, 2002. Elcano, Mary S., R. Andrew German, and John T. Pickett, “Hiding in Plain Sight: The Quiet Liberalization of the United States Postal System” in *Current Directions in Postal Reform* (edited by M.A. Crew and P.R. Kleindorfer, Kluwer Academic Publishers) 2000.

⁵⁷ See Robert Cohen, William Ferguson, John Waller and Spyros Xenakis (with Econometric Appendix by Edward Pearsall), “The Impact of Using Worksharing to Liberalize a Postal Market,” in Proceedings of the Wissenschaftliches Institut für Kommunikationsdienste GmbH 6th Koenigswinter Seminar on Postal Economics “Liberalization of Postal Markets,” February 19-21, 2001. See also Marshall Kolin, “Worksharing, Residential Delivery, and the Future of the USO,” in M.A. Crew and P.R. Kleindorfer, Eds., *Current Directions in Postal Reform*, Kluwer (2000).

⁵⁸ The 2003 President’s Commission recommends a more general policy of contracting out where private suppliers can perform better or at lower cost.

Q: Deciding to make a service a USO. Please explain factors that are considered for deciding whether a service should be a universal service obligation. Are these designations reviewed on a regular basis? If not, why not?

Unlike the Private Express Statutes, the universal service obligation is not explicitly defined in law. Therefore, there is no explicit process by which a service is determined to be part of the universal service obligation; however, federal law establishes procedures for evaluation of a change in the definition of domestic mail services, whether competitive or non-competitive.⁵⁹ These procedures also apply to new services, and to new rate categories within a subclass.

State whether universal service access is also considered as an option. For example, with Internet service, a user can go to an Internet café to access the network or stay at home. Staying at home requires access to a computer, which many disadvantaged consumers do not have. Thus universal service access may be preferred, through sharing of common facilities.

Yes, as explained above, universal service access is considered to be part of the USO in the U.S. For example, federal law requires the USPS to offer a maximum degree of effective and regular postal services to rural areas, communities, and small towns where post offices are not self-sustaining, and limits the USPS's ability to close or consolidate unprofitable post offices.

Evidence of underprovision. Please state whether there is any evidence that, without USOs, a service would be underprovided and that many people would not choose to purchase the service. What sort of evidence is required to show that an individual service should be subsidized via a USO? Are the subsidies general or targeted at the desired user group that would not receive the service?

This question raises the broader question of identifying the relevant market in which to consider the postal USO. Often, postal services are considered to be synonymous with long-distance communication services; however, significant portions of the mail stream provide services (e.g., bill presentment and payment) within a local area. Today, it appears that postal services may represent a shrinking share of communication services in part due to the rapid growth of electronic messaging which, to some extent, displaces postal services but to a greater extent may represent messages that otherwise would not have been sent. Despite these long-term trends, the USO for postal services continues to be evaluated in isolation. Historically, the major role of postal services in communication may have given postal services a major role in economic and regional development, cultural integration, and national security policies as well. These linkages from postal services to broader policy objectives appear to be attenuated as well.

Under current statutes, rates for each mail subclass cover attributable costs and provide for a reasonable contribution (as determined by the PRC) to the overhead costs of the Postal Service. A limited number of exceptions, established by federal law, provide for subsidies through federal government reimbursement for the postage due for specified categories, including designated overseas voting materials, mailings for the blind, mail sent by members of the armed services, and government mail. Federal reimbursement of these costs is designed to prevent having the costs of such mail being borne by other users through their postal rates.

Q: Entry barriers. Does establishing a USO occur in conjunction with entry restrictions that exclude competitors from part or all of a market? Is the argument based on cream-skimming concerns? If so, is any evidence required that, in the presence of cream-skimming, total industry costs will increase significantly? Are entry barriers less appropriate if an industry is operating inefficiently?

⁵⁹ 39 USC 3623.

A combination of criminal and civil statutes and Postal Service implementing regulations address private carriage. In general, the Private Express Statutes (PES)⁶⁰ make it unlawful for any entity other than the Postal Service to send or carry letters⁶¹ over post routes⁶² for compensation *unless* postage on the matter carried by private carrier is paid in an amount equivalent to the applicable postage, or the carriage qualifies for an exception⁶³ or suspension. Thus, private carriage of letters is not prohibited, although, in most circumstances, the PES make private carriage of non-urgent letters economically disadvantageous. For all items, including those that are not considered letters, such as *merchandise, newspapers, and periodicals*, private carriers may accept and deliver such items, except that, under a provision known as “the mailbox rule,”⁶⁴ delivery must be effected through means that do not involve access to mailboxes or post office boxes in Postal Service retail units.

Concern about “cream-skimming” has arisen in evaluating the universal service obligation.⁶⁵ A major concern is that entrants would compete only on high-profit routes leaving the USPS to serve the unprofitable routes. Under some conditions this could lead to a downward spiral for the USPS in which it would have to raise rates to cover costs, which in turn would cause additional entry, leading to higher rates, etc. Other observers have concluded that opening the system would have little impact on the USPS.⁶⁶ Less concern has been expressed about entrants that would offer less frequent deliveries or other forms of lower quality/lower cost service. Some recent comments have also focused on privacy and security concerns about postal competition because it would increase the number of persons with a legal rationale to access public and private buildings.

Q: Definition of universal service. The precise definition of a universal service can often play a significant role in determining who can provide the universal service. Some definitions are physical, such as fixed line access to a general telephone network, and other definitions are conceptual, such as a service that allows for the connection of a user to the general telephone network from a fixed location. Sometimes definitions are enshrined in law, and difficult to change, and at other times they are enshrined in regulations, and easier to change. How are services defined B in physical or conceptual terms? Are efforts made to define services so that multiple companies could provide them?

⁶⁰ 18 U.S.C. §§ 1693-1699; 39 U.S.C. §§ 601-606.

⁶¹ Letters are defined as messages directed to a specific person or address and recorded in or on a tangible object. Tangible objects include items such as paper, recording disks, and magnetic tapes.

⁶² Post routes include public roads, highways, railroads, water routes, air routes and letter-carrier routes within the territorial boundaries of the United States on which mail is carried by the Postal Service.

⁶³ One notable exception to the PES is the private carriage of letters conducted prior or subsequent to mailing. In general, this exception permits private carriage of letters that enter the mailstream at some point between their origin and their destination. Examples of permissible activities under this exception include pickup and carriage of letters that are delivered to post offices for mailing, the pickup and carriage of letters at post offices for delivery to addressees, and the bulk shipment of individually addressed letters ultimately carried by the Postal Service.

⁶⁴ 18 U.S.C. § 1725.

⁶⁵ There is an active literature on various aspects of the U.S. USO. The literature is reviewed in M. A. Crew and P. R. Kleindorfer, *Developing Policies for the Future of the United States Postal Service*, paper submitted to the President’s Commission on the United States Postal Service (February 20, 2003). Research funding for this paper was provided by the FTC.

⁶⁶ Cohen, Robert, Matthew Robinson, Renee Sheehy, John Waller, and Spyros Xenakis, “An Empirical Analysis of the Graveyard Spiral”, to be published in *Competitive Transformation of the Postal and Delivery Sector*, edited by M.A. Crew and P.R. Kleindorfer, Boston, MA: Kluwer Academic Publishers, 2003.

As explained above, the USO is not explicitly defined in federal law. US federal law states that the USPS is to receive, transmit, and deliver written and printed matter, parcels, and like materials. While other companies can and do provide services to most parts of the nation, as a practical matter, US federal law contemplates that a single universal service supplier will provide non-expedited letter services. The basis for the postal monopoly is the Private Express Statutes, but in some cases the USPS has promulgated regulations suspending their operation. The suspensions to the monopoly are stated in terms of content (data processing materials), origin (colleges and university letters), destination (outbound international mail), incidental nature (advertisements with parcels or periodicals), and extreme urgency (extremely urgent letters). The US President's Commission has recommended that the Postal Service not have the authority to alter the scope of the mail monopoly.

Q: Selection of universal service provider. The provider of a universal service, such as public phone service, can be selected by legislation, by a regulator, or by a bidding process. Are there any other mechanisms that are used? Generally, how is the provider of a universal service selected? Is the selection based at a national level? Could the selection be based on a narrower geographic level? If the selection were based at a narrower level, would that increase the number of potential providers of the service?

In postal services, the Postal Service (and its predecessor, the Post Office Department) have been in place since before the ratification of the Constitution. Switching providers has never been seriously considered outside of narrowing the monopoly, worksharing, and contracting out as discussed above.

Q: Separation of price from cost. It is often the case that the cost that varies the most between customers is the cost of building a connection to the customer, such as providing the line that carries electricity into a customer's home. The cost of electricity itself may vary much less, once the initial connection has been made. Thus the distortions that arise from uniform pricing may be greater for the initial connection cost of a network service than for the ongoing provision of that service. Is the physical connection cost in the electricity and telephone industry related to the actual cost of building a connection to a customer? If so, can the customer seek bids from multiple builders of a physical connection, or is there only one provider? If rural customers are given preferential tariffs that do not reflect the cost of serving them, please explain why rural customers are given preference over urban customers.

Several studies of USPS costs at the route level indicate that the gap between the profitability of urban routes and the unprofitability of rural routes has largely disappeared due to suburbanization (rural routes have become denser) and to cost-effective contracting out of some rural delivery routes.⁶⁷ Recent research also suggests that the distribution of route profitabilities is quite skewed.⁶⁸ There are relatively few routes that either are highly profitable or highly unprofitable. The implications of this finding are discussed in more detail in the section on cream skimming below.

⁶⁷ John Haldi and Leonard Merewitz, A Cost and Returns from Delivery to Sparsely Settled Rural Areas, @ in M. A. Crew and P. R. Kleindorfer, Ed., Managing Change in the Postal and Delivery Industries, Kluwer Academic Publishers, 1997.

⁶⁸ Robert Cohen, Mathew Robinson, Renee Sheehy, John Waller, and Spyros Xenekis, A An Emprical Analysis of the Graveyard Spiral, @ paper for the 11th Conference on Postal and Delivery Economics (May 2003).

Other studies have shown that lower income routes tend to receive less mail, raising the cost per piece and rendering such routes more likely to be lossmakers that would not be served without a USO.⁶⁹

Q: Benefits to provider of universal service. Does the provider of a universal service receive any explicit payment for the provision of that service? If so, how large are the payments? Must the universal service provider demonstrate that it provides the services at a non-commercial rate?

The USPS is charged with being financially self-sufficient.⁷⁰ Therefore, sufficient revenues must be earned on mail services in higher-return segments to cover the costs of providing relatively higher-cost services within the same subclass. Under current statutes, each subclass, in total, covers the total cost of providing this service plus a reasonable contribution to the overhead costs of the Postal Service. The Postal Service is not reimbursed by the government or private carriers for maintenance of universal services; rather, the total revenue of the Postal Service from the various classes of mail is required to provide sufficient revenues to cover the total costs of providing universal postal services to the entire nation. Payments for certain services, including mail for the blind, overseas voting materials, etc. are subsidized with tax revenues, however these are a very small portion of overall revenue. Rates for all services at the subclass level are established to fully cover their attributable costs, but contributions toward covering joint and common costs vary between classes of mail. The varying contributions to overhead costs are, in part, the result of the PRC's evaluation and application of the non-cost pricing criteria of the Postal Reorganization Act. First-Class Mail, which is largely covered by the Private Express Statutes, has historically shouldered a higher-than-average contribution to institutional costs relative to other classes. Under existing USPS ratemaking practice, more than 35% of total costs are institutional costs (joint or common costs) not attributable to a particular class of service.⁷¹ This implies that scope economies are substantial.

Q: On what basis are costs calculated for USO provision? Are the costs used historical? Are the costs forward-looking? Are models used to estimate the costs? Are these engineering models, as perhaps for telephone and electricity services? Are these process models, as might be appropriate for postal delivery? Is the objective to provided services of a predefined quality at the minimum price? How is the minimum established? Establishing the costs of efficient provision can be a particularly difficult problem with respect to labor inputs. How is the efficient labor cost calculated, if it is different from the actual labor cost?

While no official measure exists for the cost of the USO, various researchers have studied this topic and some have provided estimates.⁷² Prices for domestic postal services are established according to a complex procedure specified by the Postal Reorganization Act (PRA).⁷³ Every rate for each domestic

⁶⁹ Kolin, Marshall, and Edward J. Smith, 1999 "Mail Goes Where the Money is: A Study of Rural Mail Delivery in the United States," in *Emerging Competition in Postal and Delivery Services*, edited by Michael A. Crew and Paul R. Kleindorfer, Boston, MA: Kluwer Academic Publishers.

⁷⁰ 39 U.S.C. § 3621.

⁷¹ Price Waterhouse Coopers, AUSPS Legislative Reform Simulation Model Sensitivity Results, @ February 26, 1999.

⁷² See, for example, Bradley, Michael and Colvin, Jeff, 2000, "Measuring the Costs of Universal Service for Posts," in *Future Directions in Postal Reform*, edited by Michael A. Crew and Paul R. Kleindorfer, Boston, MA: Kluwer Academic Publishers; and the Cohen et al. article previously cited. See also Cohen, Robert, Matthew Robinson, John Waller, and Sypros Xenakis, "The Cost of Universal Service in the U.S. and its Impact on Competition," to be published in the proceedings of the Wissenschaftliches Institut für Kommunikationsdienste GmbH (WIK), 7th Königswinter Seminar on "Contestability and Barriers to Entry in Postal Markets," November 17-19, 2002.

⁷³ 39 U.S.C. §§ 3621 et seq.

postal service, regardless of the level of competition or whether it is subject to the statutory monopoly, is subject to this process. U.S. courts have interpreted this requirement to apply to all domestic postal services, including experimental services of temporary duration, as well as special services that are ancillary to the collection and delivery of mail, such as postal insurance and registered mail.⁷⁴ The ratesetting process is designed to permit the participation of the public in the establishment of domestic rates. When the Postal Service determines that changes in rates for domestic postal services are necessary, it must first request the PRC to provide a recommended decision. The PRC is required to prepare recommendations on the Postal Service's request, after first providing an opportunity for a hearing on the record to members of the public. Typically, customers -- both large and small, industry associations, labor unions, postal competitors, and individuals on their own behalf -- participate in these proceedings. Trial-type administrative proceedings typically consist of written expert testimony as well as oral and written cross-examination of Postal Service, customer, and competitor witnesses. Under the Postal Reorganization Act, an officer of the PRC (today known as the Office of Consumer Advocate) is responsible for representing the interests of the general public in rate and classification proceedings.

The Postal Service's revenue requirement, and consequently rates, are based on a thorough examination of the projected costs, including the expected labor costs for a representative year. Rates are designed to meet the statutory "break-even" requirement in this year. While the revenue requirement and consequently rates are based on estimates of actual costs (not hypothetical "efficient" costs) all expected cost-efficiencies and productivity improvements are incorporated into cost estimates.

The PRC must deliver its recommendations to the nine Presidentially-appointed Governors of the Postal Service within ten months of the initial Request. The Governors are responsible for establishing postal rates and fees, although their authority to make changes to the Commission's recommendations is significantly restricted.⁷⁵ Upon receipt of a recommended decision from the PRC, the Governors have several options.⁷⁶ They may approve it and place it into effect. They may allow it to take effect under protest and either seek judicial review or return it to the PRC for reconsideration. They may also reject the Recommended Decision. The latter option preserves the *status quo* unless and until further recommendations are requested by the Postal Service, made by the PRC and acted upon by the Governors. Under certain limited circumstances, the Governors may modify a Recommended Decision of the Postal Rate Commission.

The USPS makes elaborate econometric modeling presentations to the PRC during each set of rate hearings. The data sets are developed from historical data assembled by the USPS. Projections based on historical information are included in the USPS's presentations.⁷⁷

The USPS sets delivery standards (speed of service) that are measured by the USPS.⁷⁸ Compliance with delivery standards is subject to legislative oversight.⁷⁹ Suggestions by the USPS that six-

⁷⁴ *UPS v. U.S. Postal Service*, 455 F. Supp. 857 (E.D. Pa. 1978), *aff'd*, 604 F.2d 1370 (3d Cir. 1979), *cert. denied*, 446 U.S. 957 (1980); *Associated Third Class Mail Users v. U.S. Postal Service*, 405 F. Supp. 1109, 1115-118 (D.D.C. 1975), *aff'd*, *National Assoc. of Greeting Card Publishers v. U.S. Postal Serv.*, 569 F.2d 570, 595-598 (D.C. Cir. 1976), *vacated on other grounds*, *U.S. Postal Service v. Associated Third Class Mail Users*, 434 U.S. 884 (1977).

⁷⁵ 39 U.S.C. § 3621.

⁷⁶ 39 U.S.C. § 3625.

⁷⁷ Despite the extent and refinement of the analytical techniques reported by the USPS, concerns have been expressed about the quality of the data used in these analyses and the limited access of the PRC and interested parties to the USPS data and analyses. The 2003 Presidential Commission recommends that the sector regulator be given subpoena authority to better assure the reliability of USPS analysis.

day service be reduced to five-day service have aroused strong objections in Congress. Similarly, USPS suggestions that unprofitable post offices be closed have resulted in legislative requirements that impede such closures.

Q: Does the provider receive advantages from providing the universal service? How are benefits of universal service provision evaluated? Are the techniques for evaluating the advantages scientific?

Because of its status as a federal governmental entity, the Postal Service has certain powers, privileges, and immunities that are not shared by other private sector firms. The Postal Service is not subject to federal or state income taxation, and revenue and gross receipts taxes are not imposed upon the operations of the Postal Service. In most contexts, the Postal Service is not liable for state and local sales taxes imposed on the buyer when it purchases goods and services, although the Postal Service's suppliers may be subject to, and be liable for, gross receipts taxes which are imposed on them. Items sold through postal outlets are not subject to sales taxes. In general, the Postal Service is not subject to local zoning ordinances. The Postal Service may also acquire real estate and intellectual property through the power of eminent domain, but if it does so, it must provide compensation to the owner. As a federal institution, the Postal Service is immunized from certain types of civil actions. For instance, the Postal Service is not liable for misdelivery or loss of uninsured mail or for various intentional torts, such as libel, slander, misrepresentation, or intentional interference with contractual rights.⁸⁰ Some courts have, however, held the Postal Service to commercial standards in specific contexts.⁸¹

There has been considerable debate concerning the scope and extent of the Postal Service's powers, privileges, and immunities. Some observers have argued in favor of a "level playing field," at least with respect to services provided in competition with the private sector. Despite the powers and advantages of the Postal Service, the Postal Service has responded to these arguments by pointing out that it is subject to many universal service obligations and regulatory controls that do not apply to private sector firms.

Commercial advantages that would attach to the provider of universal service if entry restrictions were removed is among the major issues involved in current policy debates regarding the USPS. Since there have been no pilot programs and the promotional efforts of entrants or the USPS under these circumstances are unknown, evaluation is necessarily limited.

Financing (Postal Sector)

Q: Are there any general government policies with respect to the financing of USOs? Examples might include internal financing within the firm or financing through general taxation. When the cost of USOs is calculated, are competitors required to participate in its financing? What mechanism

⁷⁸ See Robert Cohen, Matthew Robinson, John Waller and Spyros Xenakis, "The Cost of Universal Service in the U.S. and Its Impact on Competition," in Proceedings of the Wissenschaftliches Institut für Kommunikationsdienste GmbH (WIK) 7th Koenigswinter Seminar on Postal Economics "Contestability and Barriers to Entry in Postal Markets," February 17-19, 2002.

⁷⁹ There have been occasions in which the FTC, as the consumer protection agency, has received complaints from competitors of the USPS that USPS claims regarding quality of service (speed of delivery) are false or misleading. None of these have resulted in any formal action by the FTC.

⁸⁰ 28 U.S.C. § 2680.

⁸¹ E.g., *Portmann v. United States*, 674 F.2d 1155 (7th Cir. 1982) (holding the Postal Service to commercial standards for equitable estoppel for claim related to Express Mail); *Federal Express Corp. v. United States Postal Serv.*, 151 F.3d 536, 543 (6th Cir. 1998) (quoting *Global Mail v. United States Postal Serv.*, 142 F.3d 208, 215. (4th Cir. 1998)).

is used to calculate the contribution of competitors? If market share is involved, how is each market participant share calculated?

The government policy for financing the postal USO is through the operator's self-sufficiency, but with allowance for limited borrowing from the government during deficit years between rate cases. There is no compensation fund obligating private carriers to support universal service in the United States.

Q: If the universal service provider receives a payment, how is the decision made on whether a universal service will be paid for through general taxation or taxes on users of related services?

The explicit subsidies for subsidized mail services, such as mail for the blind and overseas voting materials, are relatively small. The USPS submits information to the administration and to Congress about the costs of funding these mail services. The subsidies may or may not cover the full costs.⁸²

Q: For universal services that are paid for by general taxes, are the costs of rural customers USO obligations paid by the federal government, regional or local authorities? Might it be more efficient to allow the local authorities to choose (and subsidize) the level of services than for the federal authorities to do this? Why or why not? What are the problems with local authority payment? What are the benefits?

Not generally applicable. There are precedents in transportation services, for example, for local governments to subsidize or reorganize services that suppliers no longer wish to provide once a USO is relaxed by the regulator or legislators. If the USPS were allowed to close unprofitable post offices, for example, state or local governments could be offered an opportunity to subsidize or reorganize these offices, perhaps adapting prices or service standards to local demand and cost conditions. The 2003 Presidential Commission recommended that A[i]f there is no adequate market demand for the purchase of a >low activity= post office, the USPS should consider transferring the site to state or local governments or nonprofit organizations, with or without reimbursement, as best serves the public interest.@ This may include the possibility of continuing to operate the facility as a public mailing center.

Q: For universal services that are not paid for by general taxes, is internal cross-subsidization a preferred solution for financing universal service? If so, why? Is such a program justified? Would the costs of providing a service with different prices outweigh the benefits?

By law, revenues from each class of mail service must equal or exceed any costs that are attributable specifically to that class. Once this has been achieved, there are still many joint and common costs that must be covered in the aggregate. Under past and existing rates, different percentage markups are assigned to classes of mail. The rates charged for classes of mail, such as First-Class Mail, are uniform. Within any class of mail, there may be limited instances where revenues do not cover attributable costs or make only a minimal contribution to covering joint and common costs, even though nation-wide the applicable rates for the class result in covering attributable costs. The converse may also be true.

Each Postal Service product covers its incremental cost. Cross subsidization takes the form of providing a full menu of services to low volume, high cost areas. Because the USO cost does not arise as the result of a fixed physical network, as in telecommunications, it would be difficult and expensive to both

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The USPS appropriations request for 2003 includes \$928 million for reimbursement for services provided by the USPS between 1991 and 1998. Additional funds have been authorized to help pay the USPS for decontaminating its facilities exposed to anthrax and to detect biohazards in the mail and protect postal employees and the American public.

identify the areas receiving the cross subsidy and to measure the size of the cross subsidy for each area. Thus, use of an internal cross subsidy would seem to be efficient.

Under the current statute, cross-subsidization is not permitted between postal subclasses. Each subclass of mail must cover its attributable costs and provide reasonable contribution to overhead costs. This contribution is determined by the PRC in its application of the statutory pricing criteria under 39 USC 3622(b).

Among other analyses, the USPS has urged the PRC to consider, along with the many other ratemaking factors, Ramsey pricing principles⁸³ in setting postal rates for different classes of mail as well as other factors that lead to deviations from Ramsey prices. Under Ramsey pricing, the highest price-cost margins are applied to the customers with the least elastic demand. The rationale for this approach is that it minimizes the dead-weight loss from price discrimination between classes of mail. It does so because when demand is inelastic, higher prices and price/cost margins cause less decline in consumption and therefore less distortion in consumption decisions.⁸⁴ In general, the monopolized classes of mail have the least elastic demand. Demand for USPS services that face competition from private suppliers tends to be more elastic (since for these classes, the demand faced by the USPS is a residual demand rather than the full market demand). The PRC, however, insists that it places no reliance on Ramsey pricing for its recommended rates.⁸⁵ Nevertheless, the PRC does rely on own-price elasticities in setting rates, and monopolized classes of mail cover a substantial majority of the joint and common costs of the USPS.

Q: For services that are subsidized by taxes on users of related services, how are the related services chosen? Is the harm to consumers of related services (through increased taxation and reduced consumption) compared to the benefits for the users of the universal service?

See the discussion of Ramsey pricing.

There are no taxes on users, and under the current statutory pricing requirement, cross-subsidies are not permitted. To the extent that the phrase “subsidized by taxes on users of related services” is intended to encompass situations in which some subclasses receive higher versus lower markups over marginal costs than other subclasses, as indicated in the discussion of Ramsey pricing, the USPS has advocated that Ramsey pricing principles and models explicitly be applied for these purposes, but the PRC has declined to do so.

Q: In some industries, there may be substantial capital investment involved in providing a universal service, especially if physical connections must be built to individual users, as with fixed telephone service and electricity connections. In contrast, in some other industries, such as mail delivery, capital investment may be less critical as an issue. If the universal service provider for an existing service in a given geographic area is changed, what is the appropriate way to deal with stranded capital investment?

In general, this issue does not arise in postal services except with respect to continuing to operate post offices that are unprofitable. Most postal assets are mobile (trucks) or have alternative uses (real estate). If the retail services of the USPS were transferred to another provider with the existing legislative

⁸³ Frank Ramsey, AA Contribution to the Theory of Taxation, @ Economic Journal (March 1927). For a discussion, see W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., Economics of Regulation and Antitrust 3rd Ed., Cambridge, MA: MIT Press (2000), pp. 350-353.

⁸⁴ Conversely, the transfer effects are greater when demand is more inelastic.

⁸⁵ PRC Op & Rec. Dec. at 210-11, Docket No. R2000-1 (Nov. 13, 2000).

restrictions on closing post offices, the assets would presumably have to be transferred to the new provider as well.

Q: Role of competition authority. USOs often create entry barriers or payments from new entrants to incumbents. As a result, such obligations can have a significant impact on competition and the efficient provision of services and some observers might argue that competition authorities should be involved, in at least an advisory capacity, on government decisions related to the provision of universal service obligations. What is your view on the appropriate role of a competition authority with respect to USOs?

The role of competition authorities is generally restricted to competition advocacy with some informal law enforcement activities regarding advertising by the USPS. Reform proposals regarding the USPS routinely include provisions that would make the USPS explicitly subject to the antitrust laws⁸⁶ and that would strengthen the oversight that is now provided by the PRC.

Q: USOs are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted/not accepted that argument? Please describe your main cases.

Allegations of abusive behavior with respect to enforcement of the Private Express Statutes occur from time to time, but antitrust jurisdiction over the USPS is currently the subject of a legal challenge. The major private competitors of the USPS (Federal Express and United Parcel Service, for example) make their views known in the legislative oversight process and through participation in PRC rate proceedings. The Presidentially appointed Governors also direct the behavior of the USPS for the benefit of the public interest generally, rather than the USPS itself.⁸⁷

Industry Specific Questions (Postal Sector)

Q: Post. Why should mailboxes not be deliverable by package delivery companies, if those companies provide a reimbursement to the postal service?

Technically, private carriers may deliver to mailboxes as long as the applicable postage is paid.⁸⁸ This is, however, generally regarded as a prohibitive price.⁸⁹ The FTC staff proposed to the PRC that private delivery services be allowed to put mail in mailboxes if the private delivery service paid a fee equivalent to the lost contribution margin that the USPS would have earned on that delivery.⁹⁰ The

⁸⁶ In its *Flamingo Industries v USPS* decision (2002), the 9th Circuit Court of Appeals held that the Postal Service can be sued under federal antitrust laws because Congress has stripped the Postal Service of its sovereign status by launching it into the commercial world ...[but] our holding that the Postal Service does not enjoy status-based immunity does not prevent the Service from asserting conduct-based immunity if the action of the Postal Service being challenged was taken at the command of Congress.” The matter is now before the U.S. Supreme Court.

⁸⁷ 39 USC 202(a).

⁸⁸ As noted previously, the statutory language only makes it unlawful to place a mailable item in a postal box with the intent of avoiding payment of lawful postage. [18 USC 1725] Similarly, nothing prevents a household from having a second receptacle for other deliveries. Often newspapers provide a separate receptacle for newspapers delivered to rural customers. Further, mail slots (in the door) can legally be used for non-USPS deliveries.

⁸⁹ It is unclear whether a firm that delivered on this basis would be allowed to operate since doing so might still be a violation of the private express statutes if not the mailbox monopoly statute.

⁹⁰ FTC Press Release (March 6, 1989). [Available upon request from John Hilke at jhilke@ftc.gov.]

rationale for charging a fee at this level is that it would, on average, avoid cream skimming effects and a graveyard spiral at the USPS.⁹¹ USPS user groups viewed such fees as too cost-prohibitive for would-be entrants.⁹²

Surveys of the American public indicate widespread support for limiting access to mailboxes. A GAO survey several years ago estimated that the vast majority of adults (82 percent) are opposed to allowing “any individual person” to put items in mailboxes;⁹³ however, fifty-eight percent of respondents indicated that express mail companies such as UPS and FedEx should be allowed to put items in mailboxes. Some commenters support the USPS mailbox monopoly because they believe that it discourages criminal trespassing by limiting the number of entities that are authorized to access private property.

V. Telecommunications

Overview of Universal Service Obligations in Telecommunications Sector

Prior to passage of the 1996 Telecommunications Act, which called for putting in place procedures that increased entry of competitors into both local and long-distance (interstate) telephone markets, universal service consisted mostly of implicit subsidies flowing between classes of telephone customers. Universal service prior to 1996 generally meant that basic telephone service should be available to all citizens at reasonable prices. These twin goals of ubiquity and affordability, however, evolved over time. As early as the beginning of the twentieth century, AT&T, then an emerging monopolist, advocated that a single integrated telephone network should serve the entire nation.⁹⁴ Critics argued that AT&T desired to promote industry consolidation and thwart independent rivals. This policy changed during the 1970s when AT&T, the incumbent monopoly provider, faced growing competition in the long distance market. During that time AT&T supported a universal service policy that was designed to defend its status as monopoly provider by advocating ubiquitous access to basic telephone service for all rather than interconnection between competing networks.⁹⁵

Historically, universal service consisted principally of a number of implicit subsidy mechanisms at the state and, to a lesser extent, federal levels designed to lower costs for rural service at the expense of urban customers, lower costs for residential service at the expense of business customers, and lower costs for local service at the expense of long distance service. For example, during this period, most states had local rate levels that required businesses to pay more on a per-line basis for local service than residential customers paid for similar service. Moreover, most state regulators set rates for vertical services such as

⁹¹ There might still be cream skimming in the sense that cost and margin conditions (entry incentives) may differ by route while the fee on private deliveries to mailboxes likely would be set on a system-average basis.

⁹² Janet Meyers, AFTC Staffer Has Third-Class Idea, @ [Advertising Age](#) (March 20, 1989).

⁹³ General Accounting Office, Information About Restrictions on Mailbox Access, GAO/GGD-97-85 (May 1997).

⁹⁴ Robert W. Crandall and Leonard Waverman, [Who Pays for Universal Service](#), Brookings Institution Press, Washington D.C., 2000; Milton Mueller, [Universal Service: Competition, Interconnection and Monopoly in the Making of the American Telephone System](#), MIT and AEI Press, Cambridge, 1997.

⁹⁵ Critics argue that AT&T advocated a regulated monopoly regulatory scheme which allowed rate distortions that kept local rates artificially low. See, Crandall and Waverman, and Mueller. Also see, Philip M. Napoli, [Foundations of Communications Policy](#), Hampton Press, New Jersey, 2001.

touch tone, conference calling and speed dialing, so that these ancillary services would also subsidize basic residential local service.⁹⁶

Since the early-1980s, following the breakup of AT&T and the divestiture of the Bell regional operating companies together with limited competitive entry into the long distance telephone market that began at that time, regulators began to institute explicit access charges, which long distance companies had to pay to local operating companies for use of the local telephone network for the origination and termination of long distance calls. Since these access charges were generally set above costs, they had the effect of subsidizing local phone service at the expense of long distance customers. At the same time the Federal Communications Commission (FCC) introduced two targeted universal service programs, “Life-line” service and “Linkup America,” funded primarily by a charge on long distance calls.⁹⁷ The FCC also explicitly subsidized the cost of local exchange carriers operating in high-cost areas by establishing a universal service fund that was funded through charges on long distance carriers.

In 1996, Congress, through the 1996 Telecommunications Act, made significant changes in universal service policy. First, the 1996 Act codified federal universal service policy. Second, the scope of universal service was extended to provide benefits beyond the traditional recipients. Third, the 1996 Act altered the mechanism for funding universal service obligations at the federal level. In accordance with the 1996 Act, the FCC initiated a trilogy of actions involving competitive entry into local telecom markets, access charge reforms, and changes in universal service policy.

The 1996 Act requires that universal service support be specific, sufficient, and competitively neutral. The Act makes qualifying entrants eligible to receive support for providing certain specified services in certain areas. It permits incumbents to petition to be relieved of universal service duties (although such requests need not be accepted). As a result of changes in universal service policy brought about by the Act, a larger segment of society is now eligible to receive specific support from the universal service fund that is paid for by the interstate carriers.

Responses to Questions (Telecommunications Sector)

Q: Please list the primary telecommunications, post, transport and electricity services that are covered by non-commercial service obligations.

Core services covered by universal service obligations at the federal level include: voice grade access to the public switched network, with ability to place and receive calls; Dual Tone Multi-frequency (DTMF) signaling or its functional equivalent; single-party service; access to emergency services, including in some instances, access to 911 and enhanced 911 (E911) services; access to operator services; access to inter-exchange services; access to directory services; and toll limitation services for qualifying low-income consumers.⁹⁸ Although access to the Internet is not part of the core services, access to advanced telecommunications and information services including access to the Internet is included in the services eligible under universal service support targeted to schools, libraries, and rural health care providers.

⁹⁶ Federal Communications Commission, In the Matter of Federal-State Joint Board on Universal Service, Report and Order, Washington, D.C., May 1997. (“1997 Universal Service Order”). Some analysts have questioned the use of the word “subsidy” to characterize these flows between groups. See, David Gable, “Recovering Access Costs: The Debate,” in *Making Universal Service Policy*, edited by Barbara Cherry, Steven Wildman, and Allen Hammond, Lawrence Erlbaum Associates, Mahwah, N.J., 1999.

⁹⁷ FCC, Universal Service Order, 1997, p 9.

⁹⁸ FCC, Universal Service Order, 1997 at p.15.

The 1996 Act also includes provisions for targeted subsidies for Telecommunications Relay Services (TRS) that provide hearing and speech impaired telephone customers with functional equivalent access to telephone service.⁹⁹ Another set of targeted subsidies in the telecom sector is provided by the Department of Agriculture under its Rural Utilities Services program.

Since both federal and state governments are responsible for implementing the universal service programs, some states have defined their own set of core services covered by universal service. For example, a survey of state public service commissions found that some states include privacy protection, access to repair services, and unlisted directory service in universal service obligations.¹⁰⁰ A recent General Accounting Office (GAO) survey of state regulators shows that the states implement a variety of state-level universal service programs in addition to the federal universal service program. For example, some states have programs targeted to help high-cost and small local telephone companies. These states also allow state communications networks that link schools, libraries, local governments, and community facilities to receive services at a discounted rate.¹⁰¹

Q: Are there any general government policies towards USOs? ... What services are currently being considered as potential universal service obligations?

The 1996 Act articulated universal service policies at the federal level. These policies are based on the following guiding principles: increased reliance on explicit funds and support mechanisms that are specific, predictable, sufficient, and portable among carriers; support mechanisms that are competitively neutral so that the rules governing support mechanisms neither unfairly advantage nor disadvantage one provider or technology over another; and all providers of telecommunications services should make an equitable and non-discriminatory contribution to the preservation and advancement of universal services.

Based on the above principles and policies, the FCC implemented several universal service programs that are targeted to support customers in rural, insular, and high-cost areas, low-income customers, rural health care providers, and schools and libraries. Also, the TRS program provides help to hearing and speech-impaired customers. The high-cost program includes high-cost loop support, general high-cost support, local switching support, long-term support, interstate access support, and interstate common line support. The low-income program includes Linkup, Lifeline support, and toll limitation services.

Under provisions of the 1996 Act, states have the authority to preserve and advance universal service by following the universal service principles set forth at the federal level. Pursuant to the Act, as mentioned above, some states have implemented state-level universal service programs that go beyond the scope of federal universal service programs.

The FCC, along with the Federal-State Joint Board on Universal Service, has recently considered whether to include several specific new services in the list of core services supported by universal service funds. The services considered include advanced or high-speed services such as high-speed Internet access, unlimited local-area calling, soft dial tone or warm line services, prepaid calling plans, payphone

⁹⁹ Although TRS is not a part of section 254 of the 1996 Act, which defines federal universal service policy, it provides benefits similar to universal service benefits to a targeted group.

¹⁰⁰ International Research Center, "Universal Service to Universal Access", at http://www.researchedge.com/uss/univ_nation.html. Also see, Thomas W. Bonnett, "The new State in Ensuring Universal Telecommunications Services" in *Making Universal Service Policy*, edited by Barbara Cherry, Steven Wildman, and Allen Hammond, Lawrence Erlbaum Associates, Mahwah, N.J., 1999.

¹⁰¹ General Accounting Office, *Federal and State Universal Service Programs and Challenges to Funding*, Washington, D.C., February 2002.

lines, Braille TTY, two-line voice carry over service, N11 codes, toll or expanded area service, modified voice-grade access bandwidth, transport costs, the establishment of a rural wireless carrier eligibility category, technical and service standards, and equal access.¹⁰² The FCC decided to retain the current list of core services eligible to receive universal service support since the additional services that were considered failed to meet the criteria for adding new services that were established by the 1996 Act.¹⁰³

Q: Have non-commercial service obligations impacted efforts at liberalization? Please discuss how, in liberalizing industries, USOs have been met.

The liberalization provisions of the 1996 Act made certain of the previously implicit subsidies transparent without affecting the scope of the obligations. One direct impact of this change is that the federal charges for universal service are clearly identified on consumers' monthly telephone bills.¹⁰⁴ However, liberalization affected the pricing of core services supported by the universal service fund. For example, as a result of reform at the federal level of access charges (i.e., charges levied on long distance companies for access to the local loop), the implicit subsidies from long distance to local users have been replaced by an explicit interstate universal service support mechanism. More specifically, access reform reduced the non-traffic sensitive portion of interstate access charges and encouraged local telephone companies to recover these charges through a flat rate charge on local service.¹⁰⁵

In contrast to access reform and lower long distance rates, analysts point out that many states have continued to promote affordable basic telephone service by continuing to allow implicit subsidies that existed prior to the liberalization.¹⁰⁶ For example, GAO reports that a majority of states still practice geographic rate averaging and value-of-service pricing to set local rates. This promotes lower rates in rural and high-cost areas than would otherwise prevail.¹⁰⁷ As a result, customers in low cost urban areas subsidize customers in relatively high cost rural areas. Similarly, monthly rates for single line businesses are higher than single line residential rates in most states.¹⁰⁸ Moreover, rates for services that are not part of local basic telephone service, including, for example, caller ID, call waiting, and call forwarding, are set above their cost by many state utility commissions in order to subsidize local phone service.¹⁰⁹ Critics

¹⁰² FCC, Federal-State Joint Board on Universal Service, Order and Order on Reconsideration, July 14, 2003.

¹⁰³ See section 254(c) of the 1996 Telecommunications Act for the criteria.

¹⁰⁴ Telephone companies voluntarily identify these charges in customers' telephone bills.

¹⁰⁵ FCC, Access Charge Reform and Order, 1997.

¹⁰⁶ See GAO; Bonnett; Gregory Rosston and Bradley Wimmer, "Local Telephone Rate Structures: Before and After the Act", Stanford Institute for Economic and Policy Research, August, 2002. Gable, on the other hand argues that value-of-service pricing is not anti-competitive and that firms regularly price discriminate under competitive conditions. Note that the 1996 Act also limits FCC's ability to rebalance the rates. The Act requires that services rates in rural and high cost areas must be reasonably comparable to those in urban areas and long distance rates must be the same across states.

¹⁰⁷ Illinois Commerce Commission (ICC) unlike other state commissions has already initiated movement towards cost-based pricing by reducing or eliminating historical subsidies. The ICC has already established a high cost fund to ease the transition from monopoly to competition in local markets. See, e.g., Robert Lock, "Breaking the Bottleneck and Sharing the Wealth: A Perspective on Universal Service Policy in an Era of Local Competition," in Making Universal Service Policy, edited by Barbara Cherry, Steven Wildman, and Allen Hammond, Lawrence Erlbaum Associates, Mahwah, N.J., 1999.

¹⁰⁸ A FCC study shows that average monthly charge for residential flat-rate service in October 2002 was equal to about one-half of the business rate. Paul Zimmerman, Reference Book of Rates, Prices Indices, and Household Expenditures for Telephone Services, Wireline Competition Bureau, FCC, 2003.

¹⁰⁹ GAO Report.

have charged that these current rate distortions create artificial incentives that encourage new entrants to enter only those markets where rates are artificially set above costs, e.g., the business market in urban areas, and neglect areas where rates are low but the cost of providing service is high, such as for rural customers.¹¹⁰

Economists have argued that in the event of complete rate rebalancing, universal service will not be significantly affected. This is because studies have found that local residential rates and telephone subscriptions have very low price elasticity.¹¹¹ For example, a study of consumer expenditures for local and long distance telephone services found that very few consumers' welfare will be adversely affected if long distance rates are reduced and local rates are increased by the same proportion.¹¹²

Q: Have non-commercial service obligations changed with privatization? Please discuss the role of privatization in the definition and financing of USO's.

Telecommunications services in the U.S. have always been private. As described above, liberalization of local and long distance markets has had very little effect on the scope of universal service obligations. Rather, changes in universal service have been dictated by legislation.

Since the passage of the Act, in response to anticipated competition, a number of states have initiated various degrees of rate rebalancing – an effort to bring the relative rates for the different classes of service into closer conformity with costs. The effect will be to reduce the artificial incentives for entry and exit created by implicit subsidies.

Also, at the federal level, the 1996 Act altered the funding mechanism by requiring all carriers providing interstate telecommunications service to contribute to the universal service fund. Prior to the Act, only interstate inter-exchange carriers were required to contribute to the universal service fund, and the amount of contribution was based on number of subscriber-lines presubscribed to the inter-exchange carriers.

More recently, in response to the changing nature of the telecom market, the FCC is reviewing the contribution methodology used to fund universal service obligations.¹¹³ The primary contribution source for universal service funding -- revenues from interstate access and long-distance services -- are declining due to factors such as the migration of customers to new products and services, e.g., flat-rate pricing for bundles of minutes by wireless carriers, local exchange carrier's entry into the long distance market made possible by liberalization (Section 271 filings), and related price competition between the new entrants, wireless carriers and incumbent long distance carriers. In addition, a large number of customers are using wireless services instead of inter-exchange wireline service to make long distance calls. Likewise, many customers are using new technologies like voice over Internet to make long distance calls. This may reduce the overall amount of revenue available for universal service funding under the current funding methodology.

¹¹⁰ Rosston and Wimmer.

¹¹¹ See, Crandall and Waverman for a survey of studies.

¹¹² Frank Wolak, "Can Universal Service Survive in a Competitive Telecommunications Environment? Evidence from the United States Consumer Expenditure Survey," *Information Economics and Policy*, vol. 8, 1996, pp. 163-203.

¹¹³ FCC, Federal-State Joint Board on Universal Service, Further Notice of Proposed Rulemaking and Report and Order, February 2002.

The FCC sought comments on proposed changes in the contribution methodology including shifting from the current revenue based assessment system to a connection based assessment method whereby universal service contributions would be based on the number and capacity of connections a contributor provides to the public network. Additionally, the FCC also sought comments on proposals that would assess all connections based on capacity, and split assessments for switched connections between local exchange carriers and inter-exchange carriers, or assess switched connections based on working telephone numbers and assess non-switched connections based on capacity.

Q: Deciding to make a service a USO. Please explain factors that are considered when deciding whether a service should be a universal service obligation. Are these designations reviewed on a regular basis? If not, why not?

The 1996 Act recognizes that universal service represents an evolving level of telecommunications services and directs the Federal-State Joint Board on Universal Service to periodically recommend to the FCC services that should be supported by the federal universal service support mechanism. More specifically, the Act directs the Joint Board and the FCC to consider telecommunications services to be included in the definition of universal service that: (1) are essential to education, public health, or safety; (2) have through the operation of market choices by consumers been subscribed to by a substantial majority of residential customers; (3) are being deployed in the public telecommunications networks by telecommunications carriers; and (4) are consistent with the public interest, convenience and necessity.¹¹⁴

The Joint Board and the FCC have on a couple of occasions as directed by the Act considered the possibility of making new services eligible for universal service support. Recently, for example, the FCC on the recommendation of the Joint Board has concluded that high speed Internet access as well as some other new services do not satisfy the above four criteria and hence do not qualify for universal service support at this time.

Q: State whether universal service access is also considered as an option. For example, with Internet service, a user can go to an Internet café to access the network or stay at home. Staying at home requires access to a computer, which many disadvantaged consumers do not have. Thus, universal service access may be preferred, through sharing of common facilities.

Although universal telecommunications access through shared facilities is promoted in many countries with low telephone penetration, universal access through the sharing of common facilities has not been considered in the U.S.

Q: Evidence of under provision. Please state whether there is any evidence that, without USOs, a service would be underprovided and that many people would not choose to purchase the service. What sort of evidence is required to show that an individual service should be subsidized via a USO? Are the subsidies general or targeted at the desired user group that would not otherwise receive the service?

Although approximately 5% of U.S. households were without telephone services in 2001,¹¹⁵ very few of this number may be attributed to an under availability of telephone service. Experts have attributed

¹¹⁴ FCC, FCC Universal Service Order, 1997, p33.

¹¹⁵ FCC, Monitoring Report, October, 2001.

the lack of telephone service to low income, race, mobility, and a desire for privacy.¹¹⁶ One of the biggest reasons for not subscribing to telephone service may be the up-front connection charges.¹¹⁷ Another reason may be the loss of local service due to the nonpayment of bills, which often is caused by nonpayment for long distance services. Also, telephone companies attribute less than perfect penetration rate to high “build out” cost where building a new line may cost \$10,000. Since the 1980s two targeted subsidy programs, Life-line and Link-up, are administered by the FCC to subsidize monthly subscription rates and installation charges for qualifying low-income households. Three additional subsidies are provided under the federal universal service program. They are targeted towards helping telephone customers in rural, insular, and high cost areas, rural health care providers, and schools and libraries.

While residential telephone penetration rate has remained high over the past three decades, critics have argued that it has little to do with the universal service program. Using results from econometric models, the critics argue that since local telephone service has a low price elasticity of demand, subsidizing local rates will have very little impact on increasing telephone penetration even when the subsidy is targeted.¹¹⁸ A recent study concerning ‘E-Rate’ subsidies for the Internet access to schools and libraries (including maintenance costs and the cost of internal connections), however, concluded that E-Rate subsidies accelerated the introduction of Internet to some California schools by about four years.¹¹⁹

Q: Entry barriers. Does establishing a USO occur in conjunction with entry restrictions that exclude competitors from part or all of a market? Is the argument based on cream-skimming concerns? If so, is any evidence required that, in the presence of cream-skimming, total industry costs will increase significantly? Are entry barriers less appropriate if an industry is operating inefficiently?

While incumbent local exchange carriers have pricing, marketing, service provisioning, service quality, as well as carrier of last resort (COLR) obligations, under provisions of the 1996 Act any common carrier, including new entrants, may be designated as an eligible carrier to receive universal service support if it satisfies the following requirements. To be designated as an eligible telecommunications carrier, a common carrier must: (1) offer designated core services supported by universal service throughout the service area using its own facilities or a combination of its own facilities and resale of another carrier’s facilities; and (2) advertise the availability of such service and the charges. Generally, state commissions make the designation of which common carriers are eligible for universal service support.

Although concerns have been raised by incumbents regarding cream-skimming by new entrants, the requirement that eligible carriers offer the supported services throughout the service area to some extent mitigates the cream-skimming concern.¹²⁰ In addition, new entrants are also subject to exit barriers

¹¹⁶ Marlin Bizinsky and Jorge Reina Schement, “Rethinking Universal Service: What’s On the Menu,” in Making Universal Service Policy, edited by Barbara Cherry, Steven Wildman, and Allen Hammond, Lawrence Erlbaum Associates, Mahwah, N.J., 1999.

¹¹⁷ Christopher Garbacz and Herbert Thomson, “Assessing the Impact of FCC Lifeline and Link-up Programs on Telephone Penetration,” *Journal of regulatory Economics*, Vol11, 1997, pp. 67-78.

¹¹⁸ Ross C. Eriksson, David L. Kaserman, and John A. Mayo, “Targeted and Untargeted Subsidy Schemes: Evidence from Post-Divestiture Efforts to promote Universal Telephone Service,” *Journal of Law and Economics*, Vol. 41, 1998, pp 477-502. Unlike Eriksson, Kaserman, and Mayo, Garbacz and Thomson argue that even targeted subsidies fail to promote universal service. See, Christopher Garbacz and Herbert Thomson, “Do Lifeline Programs Promote Universal Telephone service to the Poor?,” *Public Utility Fortnightly*, March 1997, pp. 30-33.

¹¹⁹ Austan Goolsbee and Jonathan Guryan, “The Impact of Internet Subsidies in Public Schools,” Paper presented at the FCC Economic Seminar, July 2003.

¹²⁰ FCC, 1997 Universal Service Order.

where an eligible carrier seeking to exit a service area served by more than one eligible carrier must receive permission from the relevant state commission before ceasing operations. A recent study examined the effects of different telecommunications policies, including universal service policies, on the development of competition in local telephone markets, and found that the presence of explicit federal subsidies in high cost wire centers leads to a higher probability of entry in those (the subsidized) markets.¹²¹ The study also found that when differences in rates and costs are due to implicit subsidies, they tend to attract competitors in urban markets while keeping competitors away from rural markets.

Q: Definition of universal service. The precise definition of universal service can often play a significant role in determining who is eligible for universal service funding. Some definitions are physical, such as fixed line access to a general telephone network, and other definitions are conceptual, such as a service that allows for the connection of a user to the general telephone network from a fixed location. Sometimes definitions are enshrined in law and therefore difficult to change, and at other times they are enshrined in regulations, and easier to change. How are services defined – in physical or conceptual terms? Are efforts made to define services so that multiple companies could provide them?

The 1996 Act directs the FCC to establish the definition and provides the Commission with criteria to consider. More specifically, according to the Act universal service represents "...an evolving level of telecommunications services that the [FCC] shall establish periodically . . . taking into account advances in telecommunications and information technologies and services."¹²² The FCC shall consider the extent to which such telecommunications services: "(A) are essential to education, public health, or public safety; (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; (C) are being deployed in public telecommunications networks by telecommunications carriers; and (D) are consistent with the public interest, convenience, and necessity."¹²³ The Act also directs the Joint Board and the FCC to periodically review the list of services that can receive support from the universal service mechanism. To be included on this list, specific services must meet certain public interest criteria. While incumbent local exchange carriers are COLR, the 1996 Act allows other carriers to be eligible for universal service support providing they meet certain requirements to be eligible. Additionally, the competitive neutrality principle, one of the guiding principles of universal service policy, requires that universal service rules and mechanisms neither unfairly favor or disfavor one provider over another, and neither unfairly favor or disfavor one technology over another. The concept of technological neutrality embodied in the competitive neutrality principle is intended to foster the development of competition from providers other than traditional wire-based telephone companies such as wireless providers, cable operators, and certain small businesses. These competitors would become eligible for universal service funding in designated areas under certain circumstances.¹²⁴

Q: Selection of universal service provider. The provider of universal service, such as public phone service, can be selected by legislation, by a regulator, or by a bidding process. Are any other mechanisms used? Generally, how is the provider of universal service selected? Is the selection made at the national level? Could the selection be made on a narrower geographic level? If the

¹²¹ Gregory Rosston and Bradley Wimmer, "From C to Shining C: Competition and Cross-Subsidy in Communications," Stanford Institute For Economic Policy Research, Discussion Paper N0. 00-21, Stanford, October, 2000.

¹²² 47 United States Code § 254(c).

¹²³ Ibid.

¹²⁴ FCC, 1997 Universal Service Order, p. 27.

selection were based at a narrower level, would that increase the number of potential providers of the service?

Generally, state commissions designate carriers that are eligible to receive universal service support. Incumbent local exchange carriers generally are the COLR. Unlike other universal service support programs, the Act requires that schools and libraries and rural health care providers must seek bids for eligible services. The services considered eligible for support under this program include telecommunications services, Internet access, and the installation and maintenance of internal wiring and connections. Selection of providers is based mostly on price, i.e., low bidder usually wins, but other factors such as prior experience, personnel qualifications, and management capability, are sometimes also used to determine the winning bidder.

Q: Benefits to provider of universal service. Does the provider of a universal service receive any explicit payment for the provision of that service? If so, how large are the payments? Must the universal service provider demonstrate that it provides the services at a non-commercial rate?

Generally, any carrier designated as eligible to participate in any of the four universal service support programs -- high cost, low income, rural health care, and schools and libraries -- can receive payments from the universal service fund. Size of the payments depends on the cost of providing the service.

Q: On what basis are costs calculated for USO provision? Are the costs used historical? Are the costs forward-looking? Are models used to estimate the costs? Are these engineering models, as perhaps for telephone and electricity services? Are these process models, as might be appropriate for postal delivery? Is the objective to provided services of a predefined quality at the minimum price? How is the minimum established? Establishing the costs of efficient provision can be a particularly difficult problem with respect to labor inputs. How is the efficient labor cost calculated, if it is different from the actual labor cost?

The FCC determined in May 1997 that the high cost universal service support program should be based on the forward-looking economic cost of constructing and operating network facilities and functions used to provide the supported services. Accordingly, the FCC developed a Hybrid Cost Proxy Model (HCPM) based on a forward-looking cost methodology to estimate non-rural carriers' cost of providing services in high-cost areas. The support for rural carriers is based on their embedded or book costs. The Federal-State Joint Board on Universal Service, however, has recommended a gradual shift to a forward-looking economic cost mechanism for rural carriers. Support for low income, schools and libraries, and rural health care, is based on the status of the beneficiary. Payments are made directly to carriers, who pass along those payments to the customer.

Q: Does the provider receive advantages from providing the universal service? How are benefits of universal service provision evaluated? Are the techniques for evaluating the advantages scientific?

In 1997, the FCC determined that universal service support should be competitively neutral and portable. As a result, a competitive eligible telecommunications carrier (CETC) receives the same per-line support amounts for serving a customer in the incumbent's service area as the incumbent carrier receives. This support is available regardless of the technology, regardless of the provider's costs, and regardless of whether it is a primary or secondary line for the customer. Recently, some rural incumbent carriers have raised concerns about the current CETC support rules. Specifically, they contend that providing support to CETCs based on the incumbent's costs provides incentives for inefficient entry and gaming of the universal service program, and provide a windfall for the CETC. On the other hand, CETCs argue that

their ability to compete with incumbents that receive high cost support depends on CETCs' ability to participate in the support program.

Financing (Telecommunications Sector)

Q: Are there any general government policies with respect to the financing of USO's? Examples might include internal financing within the firm or financing through general taxation. When the cost of USO's is calculated, are competitors required to participate in its financing? What mechanism is used to calculate the contribution of competitors? If market share is involved, how is each market participant's share calculated?

Telecommunications carriers that provide interstate telecommunications services are required to contribute to universal service. These carriers, however, are not prohibited from recovering their contributions from their customers in an equitable and nondiscriminatory manner. Contributions to the universal service fund are based on carriers' interstate and international end-user telecommunications revenues. Carriers submit their revenue data quarterly. The Universal Service Administration Company (USAC), a third party administrator of the universal service fund, submits demand information for each of the four programs and industry revenue information. The FCC then derives a contribution factor, which is basically total program demand divided by total industry revenue. USAC applies this quarterly contribution factor to each individual carrier's revenue and bills each carrier for that amount. All telecommunications carriers, including both incumbents and competitors, with revenue from interstate and international end users are required to contribute to the universal service fund. The FCC is reviewing the current revenue based assessment system in light of a changing marketplace. New funding proposals include assessment based on the number and capacity of connections provided to a public network

Q: If the universal service provider receives a payment, how is the decision made to determine whether universal service funds will be collected through general taxation or specific taxes on users of telecommunications services?

Universal service is supported by charges collected from telephone users by carriers. These charges initially were imbedded in the rate-base, but now have become explicit charges added onto regular service charges.

Q: For universal service funds that are raised through general taxes, are the costs for subsidizing rural customers born by the federal government, regional, or local authorities? Would it be more efficient to allow local authorities to choose (and pay for) the level of service they wish to subsidize, than for federal authorities to determine both the level of service eligible to receive subsidies and the schedule of payments? Why or why not? What are the problems with local authority payment? What are the benefits?

The dual jurisdictional nature of telecommunication regulation in the U.S. requires close cooperation between federal and state regulators. This is also the case in formulating and implementing universal service policies and programs. While the FCC is responsible for implementing policies at the federal level, state public utility commissions are permitted to adopt their own universal service programs that do not conflict with federal programs. For example, state public utility commissions may maintain their own state high cost funds. In addition, if states support a low-income program, eligibility for federal low income support is based on the state criteria. The FCC defers to state eligibility criteria for the low-income program since the states are in a better position to determine consumer needs.

Q: USO's are frequently used as a justification for otherwise abusive behavior by incumbent operators. Is there any antitrust case in your jurisdiction where the competition authority has accepted/not accepted that argument? Please describe your main cases.

We are not aware of any such cases.

Q: Web sites. Please provide web site addresses containing government publications related to the topic of non-commercial service obligations or USOs.

FCC Internet Address:

www.fcc.gov (for general information)

www.fcc.gov/wcb/universalservice (for specific universal service information)

Universal Service Administrative Company (USAC) Internet Address:

www.universalservice.org (USAC administers the FCC's universal service programs)

National Exchange Carrier Association (NECA) Internet Address:

www.neca.org (NECA administers various state universal service programs)

Industry-Specific Questions (Telecommunications Sector)

Q: Should local fixed-line phone service (excluding mobile) be considered a universal service, or should access to the telephone network (including mobile) be considered a universal service? Is the price for establishing a new residential connection to the network uniform across all regions? Can anyone besides the local telephone incumbent build such connections? Is there any evidence that universal directory services would not be provided in the absence of a universal service requirement? Should directory services be characterized as a universal service eligible for subsidy from the universal service fund?

The FCC designated the following services as eligible for universal service support: (1) voice-grade access to the public switched network; (2) local usage; (3) Dual Tone Multi-frequency signaling or its functional equivalent; (4) single-party service or its functional equivalent; (5) access to emergency services including, in some circumstances, access to 911 and Enhanced 911; (6) access to operator services; (7) access to inter-exchange service; (8) access to directory assistance; and (9) toll limitation services for qualifying low income consumers.¹²⁵ The FCC determined that support should be competitively neutral and portable to promote competition among traditional wireline and other providers including wireless and cable. As a result, any eligible telecommunications carrier (including wireless carriers and cable) by providing the services listed above can receive support from the universal service fund. The support is available regardless of the technology and regardless of the provider's costs.

To be designated an eligible telecommunication carrier, the carrier must offer supported services over its own facilities or a combination of its own facilities and resale of another carrier's service.

¹²⁵ 47 Code of Federal Regulations § 54.101.

The price of connecting a new residence to the network is not uniform across regions. According to recently released FCC data, the connection charges for residential telephone lines in 95 selected U.S. cities ranged from \$13.57 to \$62.83.¹²⁶

As mentioned above, access to directory service is part of the core services supported by universal service funds. The FCC found that access to directory service satisfied the statutory criteria for determining core services and therefore could receive support from the universal service fund. More specifically, the FCC concluded that access to directory service is used by a substantial majority of residential customers, is widely available, is essential for education, public health, and safety, and is consistent with the public interest, convenience, and necessity.

¹²⁶ Paul R. Zimmerman, Reference Book.

EUROPEAN COMMISSION

PART 1: INTRODUCTION

The main topic of this Working Party is whether and how Non-Commercial Service Obligations¹ can be met while liberalising an industry or a segment of an industry, given the fact that Non-Commercial Service Obligations have often been cited as a reason to maintain an incumbent monopoly. While these and other questions will be addressed more specifically below, the conviction behind the EU's policy for the liberalisation of sectors in which Services of General Economic Interest (SGEI) and Non-Commercial Service Obligations are performed can be summarised as follows:

There is in principle no contradiction between open and competitive markets and the secure performance of SGEI and Non-Commercial Service Obligations which would exclude market opening and competition in these sectors. On the contrary, the liberalisation of SGEI sectors, which the EU has so far implemented, has shown that more open and competitive markets regularly increase the level of these services in terms of quality and affordability for users and consumers.

Maintaining and increasing the benefit of users and consumers of SGEI and Non-Commercial Service Obligations is the prime guiding objective of the EU's liberalisation policy. It thereby respects the proportionality rule laid down in Article 86(2) EC according to which the application of the Competition and Internal Market rules of the EC Treaty can be limited to the extent this is strictly necessary to allow for the good functioning of SGEI the performance of which has been attributed by the public authorities to specific undertakings. Accordingly, the Commission has through its own Directives, or through making proposals for Directives or Regulations to be adopted by the European Parliament and the Council, pursued a careful liberalisation policy. Its pace and instruments have always been adapted to the particularities of the sector in question and usually followed a step-by-step approach. This explains why in this continuous process there are today still quite differing degrees of market opening and competition in the various SGEI sectors.

In line with the above-mentioned guiding objective, the Commission's liberalisation policy has always taken particular care of Non-Commercial Service Obligations. Therefore, the progressive abolition of exclusive rights of undertakings charged with the provision of SGEI and Non-Commercial Service Obligations has been accompanied by provisions either enabling or obliging Member States to set up a system under which Non-Commercial Service Obligations can be further defined and their performance be ensured. This includes systems under which the providers of SGEI and Non-Commercial Service Obligations are compensated for the net extra cost incurred in fulfilling their obligations². The Commission's liberalisation policy thus does not stop with deregulation, i.e. the progressive dismantling of exclusive rights. It also allows or prescribes a re-regulation which ensures that, in the new environment of

¹ For the purpose of this submission, Non-Commercial Service Obligations will include Universal Service Obligations (USOs) in the traditional narrower sense and further, more far reaching Public Service Obligations (PSOs). See below Part 2.

² For details, see below Part 5 on Financing.

open markets and competition, SGEI and Non-Commercial Service Obligations continue to be performed for the benefit of users and consumers.

PART 2: CONCEPT OF UNIVERSAL SERVICE OBLIGATIONS (USOS) AND PUBLIC SERVICE OBLIGATIONS (PSOS)

I. Definition and general principles

For the purpose of this submission, Non-Commercial Service Obligations will include Universal Service Obligations (USOs) in the traditional narrower sense and further, more far reaching Public Service Obligations (PSOs³).

A. Universal Service Obligations (USOs)

In EC law and policy, the concept of Universal Service Obligations refers to a set of general interest requirements ensuring that certain services are

- **available throughout a certain territory** (e.g. the territory of a Member State) **for all consumers and users**, independently of their geographical location (geographical component)⁴,
- **at a specified quality**, often including *inter alia* regularity/continuity of service (technical component), and
- **at an affordable price**⁵, in the light of specific national conditions (economic component).

The Universal Service concept has been developed specifically for some of the **network industries** (e.g. telecommunications, postal services, electricity) and due to its nature it will usually, though not necessarily, refer to services which are provided on the basis of some kind of network.

B. Public Service Obligations (PSOs)

Public Service Obligations (PSOs) include all USOs plus certain more far reaching obligations which are usually in the general interest. These can be obligations of consumer protection (e.g. transparency of contractual terms and conditions, dispute settlement mechanisms), special protection for vulnerable customers and environmental protection.

³ The term public service obligation refers to the public/general interest in this service and the general availability of this service to the public. It has nothing to do with the public (i.e. State-controlled) or private nature of the entity performing this obligation. Therefore, PSOs and USOs can be performed by public or by private entities.

⁴ In the passenger transport sector, the geographical component may be limited to a specific route, or series of routes within a specific network.

⁵ Cf. Article 3(1) of Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to **electronic communications** networks and services (Universal Service Directive), OJ L 108, 24.4.2002, p. 51.

C. *The nature of these concepts*

USOs and PSOs are **dynamic concepts**: They ensure that general interest requirements can take account of political, social, economic, and technological developments. These concepts therefore allow for regular adjustment of these requirements to the evolving needs of users and consumers, while keeping the services concerned affordable and at a satisfactory quality level⁶.

USOs and PSOs are also a **flexible concepts**, which can apply to different market structures and can therefore be used to regulate services in different stages of market opening. Moreover, the flexibility of these concepts is *inter alia* due to the fact that **EC law intervenes with regard to USOs/PSOs in the various sectors of the economy to quite different degrees**. This allows Member States to a varying extent to take account of different traditions and specific national or regional circumstances:

- In large areas of the economy, EC law leaves Member States extensive freedom with regard to USOs and PSOs and does not require them to establish any such obligations.
- In the context of liberalising sectors in which also SGEI are provided, some pieces of EC secondary legislation expressly allow (but do not oblige) Member States to define and impose USOs and PSOs⁷.

⁶ For example, Article 15(1) of the Universal Service Directive in **Electronic Communications** (Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services, OJ L 108, 24.4.2002, p. 51) obliges the Commission periodically to review the scope of the Universal Service with a view to proposing to the European Parliament and the Council that the scope be changed or re-defined. However, a review may not necessarily lead to the conclusion that amendments have to be made. According to Article 15(1), the review shall be undertaken in the light of social, economic and technical developments. Already the Commission's 1996 Communication on Universal Service for telecommunication set out that any extension of the scope of the Universal Service should be subject to a market-based analysis of demand for and availability of the service, as well as a political assessment of its social and economic desirability. The 2002 amendment of the Postal Directive No 97/67/EC through Directive 2002/39/EC does not introduce any change in the provisions defining the Universal Service.

⁷ For example, the Directives for the Internal Market in **Electricity** (No 96/92/EC, OJ L 27 of 30.1.1997, p.20) and in **Natural Gas** (No 98/30/EC, OJ L 204 of 21.7.1998, p.1) state respectively in their Article 3(2) that Member States, having full regard to the relevant provisions of the EC Treaty, in particular Article [86], "may impose on undertakings operating in the [electricity / natural gas] sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and to environmental protection. Such obligations must be clearly defined, transparent, non-discriminatory and verifiable; ..." [emphasis added].

Similarly, the "acceleration directives" for **electricity and gas** (2003/54/EC and 2003/55/EC, adopted on 24 June 2003, to be transposed into Member States' legislation by July 2004, repealing the currently in force electricity and gas directives 96/92/EC and 98/30/EC) both include an Article 3(2) which reads as follows: "Having full regard to the relevant provisions of the Treaty, in particular Article 86 thereof, Member States may impose on undertakings operating in the [electricity/gas] sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies, and environmental protection, including energy efficiency and climate protection. Such obligations shall be clearly defined, transparent, non-discriminatory, verifiable and shall guarantee equality of access for EU [electricity/gas] companies to national consumers. In relation to security of supply, energy efficiency/demand-side management and for the fulfilment of environmental goals, as referred to in this paragraph, Member States may introduce the implementation of long-term planning, taking into account the possibility of third parties seeking access to the system." [emphasis added]

- In some other cases, EC secondary legislation goes one step further and obliges Member States to ensure a Universal Service containing certain requirements of regularity, territorial coverage and affordability⁸, and/or to impose further PSOs⁹. The legal form of this EC secondary legislation usually is a Directive, i.e. an act which is binding as to the result to be achieved by the Member States, but leaves to national authorities the choice of form and methods to attain these goals (Article 249(3) EC).

II. Technique of defining USOs/PSOs and preventing of possible restrictive effects

The OECD questionnaire expresses concern that the definition of a Universal Service can have an unduly restrictive effect upon access to the provision of the Universal Service. In the area in which EC law is in principle applicable, the following rules apply. They have to be seen in relation with the degree of intervention by EC law into these matters.

In **sectors not (yet) covered by EC secondary legislation**, Member States have full freedom to define USOs/PSOs (including the content, method of provision, financing, etc). However, where Member States wish to establish a Universal Service/Public Service and impose USOs/PSOs in scenarios, which have a transborder element or an effect on trade between at least two Member States, they have to observe the rules and principles under the EC Treaty. These are in particular the general non-discrimination rule and the specific non-discrimination rules contained in the Internal Market provisions¹⁰, as well as the Competition provisions of the EC Treaty. To the benefit of consumers and users of Universal Services/Public Services, as well as providers of these services, these rules ensure that defining and implementing USOs/PSOs, on the conceptual as well as on the physical and technical level, does not lead to any, or at least no unjustifiable, limitations of the Internal Market freedoms and of free Competition in that Internal Market.

⁸ For example, Articles 3-6, 12, 16, 17 of the **Postal Directive** (No 97/67/EC of the Parliament and of the Council on common rules for the development of the internal market of Community postal services and the improvement of quality of service, OJ L 15 of 21.1.1998, p.14) oblige Member States to ensure a Universal Postal Service with specified criteria relating to territorial coverage, quality, regularity and affordability of service.

Similarly, Articles 3-11 of the Universal Service Directive in **Electronic Communications** (No 2002/22/EC) oblige the Member States to ensure a universal service with specified criteria relating to territorial coverage, quality, regularity and affordability of service, and which covers the provision of telephone access at given *fixed points*, public *payphones*, special schemes for *disabled users*, and the *affordability of tariffs* (with a possibility of social tariffs).

Along the same lines, the new directive 2003/54/EC for the **electricity sector** (adopted on 24 June 2003, to be transposed into Member States' legislation by July 2004, repeals the currently in force electricity directive 96/92/EC) in its Article 3(3) foresees that: *"Member States shall ensure that all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million), enjoy universal service, that is the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices. To ensure the provision of universal service, Member States may appoint a supplier of last resort. Member States shall impose on distribution companies an obligation to connect customers to their grid under terms, conditions and tariffs set in accordance with the procedure laid down in Article 23(2). ... "* [emphasis added]

⁹ See e.g. Article 3(5) of **Electricity Directive** 2003/54/EC and Article 3(3) of **Natural Gas Directive** 2003/55/EC: Appropriate measures to protect final customers and adequate safeguards to protect vulnerable customers of electricity and of natural gas.

¹⁰ Freedom of establishment and to provide services, as well as free movement of goods.

Where EC secondary legislation exists, two alternative techniques are being used:

- Either, EC secondary legislation sets a framework within which the Member States can voluntarily define and implement USOs and PSOs subject to control by the Commission who will check compliance with the above mentioned rules and principles of the EC Treaty and intervene through infringement procedures if necessary. This model ensures the compatibility of USOs and PSOs with the market opening and liberalisation goals pursued by that EC secondary legislation¹¹.
- Or, EC secondary legislation defines itself a (minimum) Universal Service or specific PSOs which have to be ensured by the Member States. This is for example the model used by the Postal Directive¹², by the Universal Service Directive in Electronic Communications¹³ and partly by the new Electricity and Gas Market Directives¹⁴. Member States can add to this standard more far reaching definitions of USOs and PSOs, provided they do not place themselves in contradiction with the EC Directive and with the rules and principles of the EC Treaty. In any event, any transposition of obligations under the Directives and any Member State measures beyond what is prescribed by the Directives is subject to the Commission's surveillance as guardian of the EC Treaty rules and of EC secondary legislation.

Finally, it is important to underline that the issue of possible restrictions due to the way in which USOs/PSOs are defined has to be distinguished neatly from the question whether and to what extent it is possible under EC law to reserve a market, or part of a market, to one supplier as a financing method of

¹¹ The Directives for the Internal Market in **Electricity** (No 96/92/EC, OJ L 27 of 30.1.1997, p.20) and in **Natural Gas** (No 98/30/EC, OJ L 204 of 21.7.1998, p.1) state respectively in their Article 3(2) that the PSOs which Member States may impose "*must be clearly defined, transparent, non-discriminatory and verifiable*", and that "*they, and any revision thereof, shall be published and notified to the Commission by Member States without delay.*"

Similarly, the "acceleration directives" for **electricity and gas** (2003/54/EC and 2003/55/EC) in their respective Articles 3(9) and 3(6) foresee a notification by Member States to the Commission of the measures they adopt in relation to USOs and PSOs. These two Articles read as follows: "*Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil universal service and public service obligations, including consumer protection and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from this Directive. They shall inform the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.*"

¹² Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community **postal services** and the improvement of quality of service, OJ L 15, 21.1.1998, p. 14. Articles 3-6, 12, 16, 17 of this Directive oblige Member States to ensure a Universal Service with detailed criteria concerning territorial coverage, quality, regularity and affordability.

¹³ See in particular Articles 3-11 of the **Universal Service Directive in Electronic Communications** (Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services, OJ L 108, 24.4.2002, p. 51).

¹⁴ USOs for the benefit of household customers of electricity (see Article 3(3) of Electricity Directive 2003/54/EC). Appropriate measures to protect final customers and adequate safeguards to protect vulnerable customers of electricity and of natural gas (see Article 3(5) of Electricity Directive 2003/54/EC and Article 3(3) of Natural Gas Directive 2003/55/EC).

enabling him to ensure a Universal Service/Public Service and to discharge USOs/PSOs which public authorities have placed upon him¹⁵.

III. Factors relevant for deciding to establish a USO/PSO and their review

The factors relevant for deciding to establish a USO/PSO have in the first place to be seen again in relation with the degree of intervention by EC law into these matters¹⁶, which determines who has the power to decide upon USOs/PSOs.

In **sectors not covered by EC secondary legislation**, Member States have full freedom to shape their policies and thus to choose which factors are relevant for them in deciding whether or not to impose USOs/PSOs. The most important and most common reason for imposing USOs/PSOs certainly is a political decision to ensure for all citizens a certain level of service (in terms of territorial coverage, quality, affordability and other general interest features), coupled with the assessment that this level would not be achieved by free market forces alone, so that underprovision is foreseeable. As a result, for similar sectors, the scope of the Universal Service/Public Service will vary between Member States according to the nature of their political decisions and the economic, societal and other factors which influence them.

Where EC secondary legislation exists and just sets a framework for Member States, the power to choose which factors are relevant for deciding whether or not to impose USOs/PSOs remains in the hands of the Member States. EC secondary legislation here only limits the set of different USOs/PSOs, which Member States can impose, while within this limitation Member States remain free in their political decision to make use of the possibility to impose USOs/PSOs.

Where EC secondary legislation obliges Member States to ensure a Universal Service of specified criteria, the reason is again a political decision, this time on the European level, to ensure a certain level of service for all citizens throughout the EU, coupled with the assessment that (1) this level would not be achieved by free market forces alone (i.e. underprovision is foreseeable), and that (2) there is a necessity for action on the European level (subsidiarity test). In practice, USOs/PSOs imposed by EC secondary legislation in certain sectors have played an important role in making partial liberalisation (e.g. post) or full liberalisation (e.g. telecommunications, energy) in these sectors politically acceptable.

IV. Primary telecommunications, post, transport, electricity, gas supply services which are covered by Non-Commercial Service Obligations

A. Telecommunications

In the telecommunications sector, the following USOs/PSOs must be provided at an affordable rate and at a good service quality:

- Connection at a fixed location to the public telephone network. The connection should be capable of allowing end-users to make and receive local, national and international phone calls, facsimile communications and data communications at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility.
- Directory enquiry services.

¹⁵ See also below Part 5 on Financing.

¹⁶ See above Part 2, point II.

- Public pay telephones.
- Special measures for disabled users.

B. Postal Services

For what regards post, Directive 97/67/EC states that the Universal Postal Service should include in each Member State the following minimum facilities:

- the clearance, sorting, transport and distribution of postal items up to 2 kilograms,
- the clearance, sorting, transport and distribution of postal packages up to 10 kilograms,
- services for registered items and insured items.

It is also made clear that the Universal Service shall cover both national and cross-border services.

C. Transport

In the transport sector, virtually all passenger services provided by rail, metro and bus are subject to some sort of PSOs. In air and sea transport, PSOs tend to be the exception rather than the rule.

D. Energy

In the **electricity sector**, the main services covered by Non-Commercial Service Obligations are the following (Articles 3(2), 3(3) and 3(5) of the "acceleration directive Electricity" 2003/54/EC):

- security, including security of supply, regularity, quality and price of supplies;
- environmental protection, including energy efficiency and climate protection;
- universal service, that is the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices for all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million);
- protection of final customers, and in particular vulnerable customers covering customers in remote areas, including measures to help them avoid disconnection;
- consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms; and
- effective right for eligible customers to switch to a new supplier; for this purpose, concrete measures in favour of at least household customers are listed.

In the **natural gas sector**, the main services covered by Non-Commercial Service Obligations are the following (Articles 3(2) and 3(3) of the "acceleration directive Gas" 2003/55/EC):

- security, including security of supply, regularity, quality and price of supplies;

- environmental protection, including energy efficiency and climate protection;
- protection of final customers, in particular vulnerable customers, including appropriate measures to help them avoid disconnection. Again, vulnerable customers cover customers in remote areas who are connected to the gas system;
- supply by supplier of last resort for customers connected to the gas network;
- consumer protection, particularly with respect to transparency regarding general contractual terms and conditions, general information and dispute settlement mechanisms.
- effective right for eligible customers to switch to a new supplier; for this purpose, concrete measures in favour of at least household customers are listed.

V. Ensuring that maximum benefits actually reach consumers and users

A. General principles

The liberalisation programme at EU level assumes that open and competitive markets are the best basis for ensuring a maximum of consumer choice. In addition to that, as explained, EU law either allows or even obliges Member States to establish USOs and PSOs to ensure a certain level of quality, territorial coverage and affordability. In this context, for example, the new Directive on Electricity foresees that Member States, in order to discharge their duty of ensuring a Universal Service for household customers, may nominate a supplier of last resort¹⁷, combined with the obligation of non-discrimination as to the tariffs and conditions applied by the last-resort supplier. Beyond this, some EU Directives, such as again the new Directives on Electricity and Gas establish further obligations and mechanisms, for example Member States' obligations to protect final customers and in particular vulnerable customers¹⁸ and consumer protection mechanisms (transparency of contractual terms and conditions, dispute settlement mechanisms)¹⁹. As concerns natural gas (where there is no obligation under the new Gas Directive to ensure a Universal Service for household customers) the new Gas Directive suggests that Member States in order to discharge their obligation to protect final and vulnerable customers may nominate a supplier of last resort²⁰.

It is important that wherever Member States fail to meet obligations under EU Directives, the beneficiaries of these obligations have an actionable right to performance if the time limit for transposing the Directive into national law has expired and if the relevant provision of the Directive is sufficiently clear and operational to be directly applied (principle of direct effect of Directives). If the relevant piece of EC secondary legislation is a Regulation, this is directly applicable in all Member States from the day of its entry into force (Article 249(2) EC).

B. Evaluation of Services of General Economic Interest and of USOs/PSOs

Effective evaluation can be of important help in ensuring that the maximum benefits of Services of General Economic Interest (SGEI) and USOs/PSOs actually reach consumers and users. In fact, in a constantly changing economic, technological and regulatory environment, a regular evaluation of the

¹⁷ Article 3(3) Electricity Directive 2003/54/EC.

¹⁸ Article 3(5) Electricity Directive 2003/54/EC and Article 3(3) of Natural Gas Directive 2003/55/EC.

¹⁹ Article 3(5) Electricity Directive 2003/54/EC and Article 3(3) of Natural Gas Directive 2003/55/EC.

²⁰ Article 3(3) of Natural Gas Directive 2003/55/EC.

performance of SGEI and of the Universal Service/Public Service aspect is of key importance in order to secure the efficiency of these services and to keep them in line with people's basic needs. It is important to know what users and consumers (including vulnerable and marginalised groups), social partners and other parties consider a good performance for these services and their expectations for the future. A comprehensive evaluation helps monitoring whether the general interest tasks and USOs/PSOs assigned by public authorities to the providers of such services are effectively achieved. Moreover, it increases transparency and provides the basis for better policy choices and an informed democratic debate²¹. Performance evaluation can also assist in exchanging best practices across borders and between economic sectors.

Accordingly, the Commission has in recent years increased its evaluation efforts in the area of SGEI and USOs/PSOs. It sees the evaluation as a complex task which is multidisciplinary, multidimensional, which covers political, economic, social and environmental aspects, including externalities and which takes account of the interests and views of all interested parties. The Commission has thus developed an evaluation strategy that is based on three strands of assessments²²:

- The Commission conducts regular evaluations of the network industries that have been liberalised at Community level (sectoral evaluation).
- In addition, the Commission started in 2001 to perform an annual cross-sectoral evaluation of the network industries (horizontal evaluation).
- Thirdly, the Commission carries out regular consumer satisfaction surveys in the area of SGEI (e.g. Eurobarometer opinion polls and qualitative surveys).

In the context of its horizontal evaluation, the Commission has also submitted a methodology for the evaluation of SGEI²³. It has stressed the need to gradually develop and improve its regular horizontal evaluations over the coming years. The huge disparity in data availability and data quality is a main stumbling block for a comprehensive evaluation and ways to improve data quality and availability should be examined. Currently, the Commission's evaluation activity is limited to producing evaluation reports on the performance of network industries providing SGEI which are covered by sector-specific Community legislation. Moreover, the Commission's limited resources do not allow it to present a consolidated view representing all the, often diverging, views of the different interested parties. In its Green Paper on Services of General Interest of 21 May 2003²⁴, the Commission has therefore invited comments on the scope and the way of evaluation at Community level and on how responsibilities could be shared.

VI. The impact of privatisation

From the European perspective, the first point to stress is that by virtue of Article 295, the EC Treaty cannot in any way prejudice the rules in Member States governing the national system of property

²¹ At Community level the evaluation of SGEI is also essential to ensure that objectives of social and territorial cohesion and of environment protection are attained.

²² Report to the Laeken European Council, COM(2001)598, 17.10.2001; Communication from the Commission: A Methodological Note for the Horizontal Evaluation of Services of General Economic Interest, COM(2002)331 final, 18.6.2002

²³ Communication from the Commission: A Methodological Note for the Horizontal Evaluation of Services of General Economic Interest, COM(2002)331 final, 18.6.2002.

²⁴ COM(2003)270 final.

ownership. This means that neither the EC Treaty, nor any secondary legislation, nor any action under it can oblige Member States to privatise public sector (i.e. State-controlled) undertakings or to nationalise private sector undertakings. Member States remain entirely free to decide their policy in this field. The neutrality of EC law in this respect also means that the principles outlined above governing the definition of the Universal Service/Public Service and the rationale for imposing USOs/PSOs are valid irrespective of the ownership of the undertakings involved.

However, there is an indirect relationship between privatisation, on the one hand, and liberalisation which EC law has imposed or Member States have engaged in voluntarily, on the other hand. Before liberalisation, network industries and sectors in which a Universal Service/Public Service was provided were typically run by State-controlled undertakings. The opening of the market for other providers has attracted not only public former monopolist undertakings from other Member States but also private providers (either in the form of companies already established in other Member States or in the form of completely new entrants). Liberalisation has encouraged Member States to consider partial or full privatisation of their public former monopolist undertaking.

Liberalisation has also forced Member States to rethink the content and the attribution of USOs/PSOs in a market in which new suppliers compete with the former monopolist undertakings since the latter might have a competitive disadvantage if it remained the only provider charged with USOs/PSOs. In order to involve the new suppliers in the Universal Service in a system of burden-sharing (payment into a Universal Service fund or obligation to contribute physically to the Universal Service), the EC in its secondary legislation, or the Member States where acting voluntarily, had to define USOs and the way they are provided and financed more clearly than this was the case before.

There is however no indication that liberalisation, or privatisation taking place within it, have undermined USOs/PSOs. On the contrary, in most cases a successful combination of opening markets for competition and of introducing new non-discriminatory regulation has led to a substantial improvement in the level of the Universal Service/Public Service.

PART 3: USOS/PSOS AND LIBERALISATION

The Commission's liberalisation programme for sectors in which SGEI and USOs/PSOs are performed has always taken particular care to ensure that more open and competitive markets would be compatible with the secure performance of SGEI and USOs/PSOs. This is not only a matter of sensible policy but also of legal necessity. The ECJ has ruled that Article 86(2) EC may justify the limitation and even the exclusion of all competition for an undertaking entrusted by the State with the performance of SGEI, if there is no less restrictive way to ensure the good functioning of the SGEI. The ECJ ruled that in particular a Universal Service burden which obliges the entrusted undertaking to serve all customers, including the less profitable and unprofitable ones, might justify the exclusion of competition by way of an exclusive right in favour of the entrusted undertaking²⁵. Therefore, when abolishing exclusive rights through EC secondary acts and legislation, the Commission, as well as the European Parliament and the Council have to provide for mechanisms which ensure the secure provision of SGEI and USOs/PSOs in a less restrictive way. In practice, this has materialised in a progressive approach for the abolition of exclusive rights and in the establishment of special mechanisms enabling or obliging Member States to ensure SGEI and USOs/PSOs.

²⁵ ECJ Case 320/91, judgment of 17 May 1993, *Corbeau* [1993] ECR I-2533 (points 14-19).

I. Telecom

In Telecom, full liberalisation in 1998 was only possible by allowing Member States to ensure financing of USOs by setting up a Universal Service fund or a system of additional charges. Also under the new Universal Service Directive, NRAs can determine what is the net cost of providing the USO and subsequently introduce a compensation fund and/or share the net cost between the providers of electronic communications networks and services. However it is possible for such mechanisms to harm competition if they unduly favour the incumbent at the expense of the alternative operator²⁶.

II. Post

In the postal sector the need to maintain an USO strongly influences the liberalisation process. Both Directive 97/67/EC and Directive 2002/39/EC in fact allow Member States to maintain a huge reserved area in order and to the extent necessary to ensure the maintenance of the USO. This also influences liberalisation since Universal Service providers enjoy the possibility of leveraging their position of power in the markets part of the USO to obtain more market power in markets which are outside the USO (and therefore also outside the reserved area).

III. Transport

In the transport sector, there is no reason in principle why PSOs in some form or another should not be applied to all service providers e.g. to require all train operators to provide passenger services round the clock. However, the more onerous the PSOs, the less likely operators will be able to meet them without public subsidy. At that point, there is a balance to be struck between maximising competition and minimising calls on the public purse. On the other hand, service obligations, which may be non-commercial for the historical incumbent, may not be so for a new entrant and it may be that, over time, the imposition of PSOs will modulate because the market may evolve in such a way as to meet wider social policy objectives without intervention. There is no reason to believe that certain types of passenger transport are endemically loss-making. The contracting authority has an important role in ensuring that PSOs are properly enforced, preferably under contract, and that contract length is proportionate so that the benefits of supply side competition can be brought to bear at appropriate intervals.

IV. Energy

In the energy sector, the original Directives for an Internal Market in electricity and natural gas²⁷ foresaw a gradual market opening in successive steps leading over several years to a final liberalisation of about a third of the market. However, a majority of Member States voluntarily opened their markets

²⁶ By decision of 6 December 2001 in case C-146/00 (*Commission v. France –telecommunications – financing of Universal Service*), the European Court of Justice fully endorsed the Commission's objections to the French Universal Service funding mechanism. It emphasised in particular the importance of the principle of transparency in the calculation of the net cost of Universal Service and confirmed that evidence of the existence of a net cost of a Universal Service must be demonstrated. However, this judgment does not deal with matters of principle on the scope and nature of Universal Service. A lesson to be drawn from the French example is that it is extremely easy for Universal Service providers to claim artificial net costs, and that their assertions are difficult to refute. In particular, the notion of *normal market conditions* is difficult to define, for example there is considerable room for debate when determining (i) what customers or areas should be considered as non profitable, and (ii) whether a normal operator acting in normal conditions would have or would not have addressed the needs of these areas or customers after a cost/benefit analysis.

²⁷ Directives for the Internal Market in Electricity (No 96/92/EC, OJ L 27 of 30.1.1997, p.20) and in Natural Gas (No 98/30/EC, OJ L 204 of 21.7.1998, p.1)

beyond the scope required by the Directives. As a result, different levels of market opening in different Member States and thus an uneven playing field developed, affecting electricity and gas customers as well as companies and leading to distortions of competition. In the light of this experience, and also with the Lisbon objectives in mind²⁸, the European Parliament and the Council adopted on 24 June 2003 Directives²⁹ for an accelerated market opening which foresee full liberalisation of electricity and gas markets for non-household customers by 1 July 2004 and full liberalisation for all users by 1 July 2007. In practice, the fact that - in comparison with the old Directives - the new Electricity Directive does not only allow Member States to impose PSOs but also obliges them to ensure a Universal Service for household customers and small enterprises, and that both the new Electricity and Gas Directive oblige Member States to take appropriate measures to protect final customers and adequate safeguards to protect vulnerable customers³⁰, has contributed to making this accelerated full market opening politically acceptable.

PART 4: SELECTION OF THE UNIVERSAL SERVICE PROVIDERS

I. Principles

It is important to distinguish the issues of (1) market opening and competition in sectors in which SGEI and USOs are performed, (2) the designation by the State of the undertakings charged with SGEI and USOs, and (3) the selection by the State of the provider of SGEI and USOs, if the State decides to participate in the provision not through its own administration but by engaging a third party.

The degree of market opening and competition, i.e. the possibility for competing suppliers to enter the market, is decided by the relevant EC Treaty rules on the Internal Market (freedom of establishment and to provide services) and on Competition (Antitrust and Liberalisation), and by the relevant secondary EC acts and legislation, taking account of the proportionality principle laid down in Article 86(2) EC. For the designation by the State of the undertakings charged with SGEI and USOs, there are some requirements if this shall take the form of an entrustment in the sense of Article 86(2) EC³¹, and certain further requirements laid down in the relevant secondary EC acts and legislation³².

Finally, if the State wishes to participate in the provision of SGEI and the Universal Service, it has the choice whether to do it through its own administration or through engaging a third party (public or private undertaking). If the State chooses to do the latter, it has to comply with public procurement rules and principles for the selection of this third party. The objective of these rules and principles is - in view of the usually high economic value of the contracts with the State for the provision of these services - to

²⁸ At its meeting in Lisbon on 23 and 24 March 2000, the European Council called for rapid work to be undertaken to complete the internal market in both electricity and gas sectors and to speed up liberalisation in these sectors with a view to achieving a fully operational internal market.

²⁹ "Acceleration directives" for electricity and gas (2003/54/EC and 2003/55/EC, adopted on 24 June 2003, to be transposed into Member States' legislation by July 2004, repealing the currently in force electricity and gas directives 96/92/EC and 98/30/EC).

³⁰ Article 3(5) of the Electricity Directive 2003/54/EC and Article 3(3) of the Natural Gas Directive 2003/55/EC.

³¹ An act of public authority has to define the SGEI clearly and to attribute its performance to one or more specifically named undertakings.

³² For example, Article 3(3) of the **electricity "acceleration directive"** (No 2003/54/EC) indicates that the nomination of a supplier of last resort shall be *"implemented in a transparent and non-discriminatory way and shall not impede the opening of the market"*.

ensure for all undertakings capable of providing that service a level playing field and equal chances of being selected by the State³³.

II. Sector-specific rules

A. Telecommunications

In the telecommunications sector, the choice of the USO provider is determined primarily by historical rights to existing infrastructure. It would not be feasible in many instances to replicate the same infrastructure again. However, where new infrastructure is being built, entrants should be able to compete to provide the USO since the new Universal Service Directive³⁴ at Article 8 states that Member States shall use an efficient, objective, transparent and non-discriminatory designation mechanism and no undertaking shall be excluded *a priori* from being designated as a provider of USOs and the USOs must be provided in a cost effective manner.

B. Post

Directive 97/67/EC leaves a wide range of discretion to Member States as regards the selection of the Universal Postal Service provider. It is important to remark, however, that the Directive explicitly allows for the possibility of selecting more than one single Universal Postal Service provider.

C. Transport

In the transport sector, Article 4 of Council Regulation 2408/92/EEC³⁵ empowers a Member State, in consultation with the other Member States and after having informed the Commission, to impose PSOs on any scheduled **air transport** route within its territory in certain circumstances and, if necessary, to procure an air transport service on the route by competitive tendering for the exclusive right to operate for a three year period. Article 4 of Council Regulation 3577/92/EEC³⁶ permits a Member State to impose PSOs on **cabotage services between islands** but says nothing about competitive tendering. Likewise, Council Regulation 1191/69/EEC on **public service in rail, road and inland waterway transport**³⁷, as amended by Council Regulation 1893/91/EEC³⁸, recognises the social character of public transport by allowing national authorities to conclude public service contracts with transport providers and permits the

³³ For more detail see paragraph 81 of the Commission's Green Paper on Services of General Interest, COM(2003)270 final. See also the ECJ judgement of 7.12.2000 in Case C-324/98 *Telaustria*, point 62.

³⁴ Universal Service Directive 2002/22/EC in **Electronic Communications** (OJ L 108, 24.4.2002, p. 51).

³⁵ Council Regulation 2408/92/EEC of 23 July 1992 on access for Community air carriers to intra-Community air routes (O.J. L 240/8 of 24.8.1992), part of the 3rd aviation package.

³⁶ Council Regulation 3577/92/EEC of 7 December 1992 applying the principle of freedom to provide services to maritime transport within Member States (maritime cabotage) (O.J. L 364 of 12.12.1992).

³⁷ Council Regulation 1191/69/EEC of 26 June 1969 on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway (O.J. L 156 of 28.6.1969).

³⁸ Council Regulation 1893/91/EEC of 20 June 1991 amending Regulation 1191/69/EEC on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway (O.J. L 169 of 29.6.1991).

authorities to impose PSOs on operators, particularly in urban, suburban and regional public transport. However, the legislation does not say anything about how public service contracts should be awarded³⁹.

D. Energy

With regard to the energy markets, no specific rules for the selection of the USO provider are set.

PART 5: FINANCING

I. General Principles

In many cases, it is not sure that a Service of General Economic Interest and a USO/PSO could be viably provided on the basis of market mechanisms alone and specific arrangements are therefore necessary in order to ensure the financing⁴⁰. As a starting point, it is for Member States to decide how to finance SGEI and USOs/PSOs, but where EC law is applicable, they have to observe certain limits set by the EC rules⁴¹.

Depending on historical traditions and the specific characteristics of the services concerned, Member States apply a range of different financing mechanisms, such as:

- Direct financial support to the relevant service provider through the State budget (e.g. subsidies or other financial advantages such as tax reductions).
- Special or exclusive rights for the relevant service provider (e.g. a legal monopoly).
- Contributions to the relevant service provider by other market participants (e.g. a Universal Service fund).
- Tariff averaging (e.g. a uniform country-wide tariff in spite of considerable differences in the cost of provision of the service with regard to individual customers).

II. Requirements of EC law

The relevant EC rules on Competition (Antitrust, Liberalisation, State aid) and the Internal Market freedoms of establishment and the provision of services are applicable if (1) the Service of General Interest in question is of economic nature (thus constituting a Service of General Economic Interest – SGEI), and if (2) the case is not purely domestic to one Member State because trade between Member States may be affected or some other transborder element is present. The financing schemes set up by Member States will then have to observe certain standards set by the EC Treaty and by secondary acts and legislation adopted on the basis of the EC Treaty.

One important standard which applies to all types of financing is that the net extra costs, which undertakings charged with SGEI and USOs/PSOs incur due to performing these special services and

³⁹ The award of certain public service contracts is subject to EC Directives on public procurement. But many contracts – particularly those embodying concessions – are not subject to these procedures.

⁴⁰ As concerns the origin of the necessary resources, in some cases the EU may contribute by way of co-financing to the funding of specific projects, e.g. through its structural funds or its TEN programmes.

⁴¹ See point II. below.

obligations, **may be compensated but not overcompensated**. The latter would give the undertaking concerned an unjustified competitive advantage and impede market entry by other providers, thus infringing the EC Competition and Internal Market rules.

III. Different types of financing

A. Granting exclusive rights and less restrictive methods

One way of financing SGEI and USOs has traditionally been for the State to grant an **exclusive right**, i.e. to establish a legal monopoly in favour of the undertaking entrusted with the SGEI and the performance of USOs. In this context, the European Court of Justice (ECJ)⁴² has ruled that the granting of exclusive rights is not *per se* incompatible with the EC Treaty and that Article 86(2) EC «permits the Member States to confer on undertakings to which they entrust the operation of services of general economic interest exclusive rights which may hinder the application of the rules of the Treaty on competition insofar as restrictions on competition, or even the exclusion of all competition, by other economic operators are necessary to ensure the performance of the particular tasks assigned to the undertakings possessed of the exclusive rights».

It is however important to underline that according to the proportionality principle under Article 86(2) EC the full application of the EC Competition and Internal Market provisions also in sectors where SGEI and USOs are performed is the rule, while accepting restrictions of Competition and of the Internal Market is the exception, which is limited to the extent strictly necessary to ensure the good functioning of the SGEI and USOs concerned. On this backdrop, when enforcing the EC Competition and Internal Market rules in sectors in which SGEI and USOs are performed, the Commission's task is to ensure that these services and obligations are organised and carried out in the least restrictive way for Competition and the Internal Market, which however still allows them to produce their special benefits for users and consumers.

Accordingly, the Commission has screened various sectors and in many of them come to the conclusion that for ensuring and financing the good functioning of SGEI and USOs there are less restrictive ways than granting a fully fledged monopoly in favour of the undertaking traditionally charged with these services and obligations. As a consequence, when dismantling the exclusive rights enjoyed by these undertakings, the liberalising Commission Directives, as well as the liberalising Directives and Regulations adopted by the European Parliament and the Council, had at the same time to ensure that the financing of SGEI and USOs would continue to be secured. This has been, and still is, a continuous process which has been adapted to the particularities of the sector in question:

1. Telecommunications

In the Telecommunications sector, the Commission likewise followed a step-by-step approach of liberalising specific markets ending with the liberalisation of the voice telephony market on 1.1.1998. This process was accompanied by harmonisation Directives which allowed Member States to secure the financing of USOs attributed to specific undertakings from within the sector by setting up a system of additional charges or a Universal Service fund to which all undertakings active in the liberalised market would have to contribute⁴³ if the net cost of the Universal Service was deemed to represent an unfair burden upon the undertaking(s) charged with this service. The relevant Directives also provided general

⁴² ECJ Case 320/91, judgment of 17 May 1993, *Corbeau* [1993] ECR I-2533 (point 14)

⁴³ Article 4c of the liberalisation Directive 90/388 as amended by Directive 96/19, and Article 5 of the ONP-interconnection Directive 97/33.

principles for the calculation of the net cost (use of the net avoidable cost, consideration of the intangible benefits, transparency) and for the compensation fund (non discrimination, transparency)⁴⁴.

Under the new regulatory framework, the Universal Service Directive⁴⁵ carries forward the principles of the former framework with one substantial modification: the compensation could come from a sectoral fund and/or the general budget, as this last option broadens the taxable base and hence reduces the market distortion due to the Universal Service.

2. *Post*

In the Postal sector, it was concluded that the monopoly for the incumbent operator, which traditionally covered all postal services, was too wide and constituted an overcompensation/overfinancing with regard to the cost of providing those services which could be accepted to fall within the category of SGEI and for which USOs would exist. Accordingly, the liberalisation technique of the 1997 Postal Directive⁴⁶ is to define a basic postal service for which Member States have to ensure a Universal Service that has to comply with certain minimum requirements relating to quality, territorial coverage and affordability. In turn, to the extent necessary to ensure the maintenance and financing of this Universal Service, the Postal Directive allows Member States to reserve for the Universal Service providers the clearance, sorting, transport and delivery of items of domestic correspondence within certain price and weight limits⁴⁷. Postal services which do not fall within those price and weight limits as well as special postal services (i.e. new services which by virtue of their specific features fulfil needs clearly different from those fulfilled by the Universal Services⁴⁸) can no longer be monopolised and are thus opened to competition. A review carried out some years later indicated that the scope of the reservable area was wider than necessary to ensure the Universal Service so that in this sense an overcompensation of the Universal Service provider to the detriment of market entry and competition by other actual or potential service providers took place. Consequently, the revision of the Postal Directive through Directive 2002/39/EC in June 2002⁴⁹ did not change the definition of the Universal Service but reduced the area which Member States can reserve for the Universal Service provider⁵⁰.

⁴⁴ See also ECJ Case C-146/00 *France/Commission (Universal service in France)* [2001] ECR I-9767, points 52-60-76.

⁴⁵ Articles 12 and 13 and Annex IV of Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), OJ L 108, 24.4.2002, p. 51.

⁴⁶ Directive 97/67/EC of the Parliament and of the Council on common rules for the development of the internal market of Community postal services and the improvement of quality of service, OJ L 15 of 21.1.1998, p.14.

⁴⁷ Price less than five times the public tariff for an item in the first weight step of the fastest standard category, and weight less than 350 grams.

⁴⁸ Commission Decision 2001/176/EC of 21 December 2000 concerning proceedings pursuant to Article 86 of the EC Treaty in relation to the provision of certain new postal services with a guaranteed day- or time-certain delivery in Italy. OJ L 63 of 3.3.2001, p.59-66.

⁴⁹ Directive 2002/39/EC of the European Parliament and of the Council of 10 June 2002 amending Directive 97/67/EC with regard to the further opening to competition of Community postal services, OJ L 176 of 5.7.2002, p.21-25.

⁵⁰ The reservable area is defined from 1.1.2003 by a weight limit of 100 grams plus a price less than three times the public tariff for an item in the first weight step of the fastest standard category. From 1.1.2006 on, the reservable area is defined by a weight limit of 50 grams plus a price less than two and a half times the above mentioned tariff.

In addition, Article 9(4) of the Postal Directive allows Member States to determine that USOs as provided for in the Directive represent an unfair financial burden for the Universal Service provider and to oblige other operators providing non-reserved Universal Services to make a financial contribution to that fund. When establishing the fund and fixing the financial contributions, Member States must respect the principles of transparency, non-discrimination and proportionality. This means also that contributions to the compensation fund can be imposed only if and to the extent that the revenues from the monopoly are not sufficient to pay the net cost of the provision of the USO. Moreover, only the basic postal services as defined in the Directive may be financed in this way.

3. *Transport*

In **air transport**, EC secondary legislation does not provide for special financing mechanisms but states that Member States granting a temporary exclusive licence on the basis of an open tender may reimburse the selected carrier for the additional costs incurred in meeting the PSO⁵¹. Likewise, in the **maritime sector**, the Commission has adopted a number of Decisions dealing with State aid awarded in connection with PSOs and exclusive rights⁵². Council Regulation 1191/69⁵³, as amended by Council Regulation 1893/91⁵⁴, recognises the social character of public transport via **rail, road and inland waterway** and allows national authorities to conclude Public Service contracts with transport providers and permits the authorities to impose PSOs on operators, particularly in urban, suburban and regional transport. The framework lays down detailed rules for calculating the financial burden arising from the imposition of these obligations. Financial compensation granted under the rules is deemed to be compatible with Article 73 EC Treaty and is therefore exempt from the State aid notification procedure foreseen in Article 88(3) EC Treaty. However, the legislation does not say anything about how public service contracts should be awarded⁵⁵. Nor, crucially, does it say anything about market opening: there is currently no entitlement in Community law to operate scheduled services⁵⁶. The Commission has thus made a proposal for the introduction of “controlled competition” in public transport via rail, road and inland waterway⁵⁷ which would oblige Member States to organise a competitive tendering for the exclusive right to provide a transport service under a contract for a fixed period of time (i.e. competition for time-limited exclusive rights).

⁵¹ Council Regulation 2408/92/EEC of 23 July 1992 on access for Community air carriers to intra-Community air routes (O.J. L 240/8 of 24.8.1992), part of the 3rd aviation package.

⁵² See, for example, Commission Decision of 30 October 2001 on the State aid awarded by France to the Société nationale maritime Corse-Méditerranée, OJ L 50 of 21.2.2002.

⁵³ Council Regulation 1191/69/EEC of 26 June 1969 on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway (O.J. L 156 of 28.6.1969).

⁵⁴ Council Regulation 1893/91/EEC of 20 June 1991 amending Regulation 1191/69/EEC on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway (O.J. L 169 of 29.6.1991).

⁵⁵ The award of certain public service contracts is subject to EC Directives on public procurement. But many contracts – particularly those embodying concessions – are not subject to these procedures.

⁵⁶ With the limited exception of special road transport services for students, military personnel and workers – Regulation 11/98/EC.

⁵⁷ Amended Commission proposal for a Regulation of the European Parliament and of the Council on action by Member States concerning public service requirements and the award of public service contracts in passenger transport by rail, road and inland waterway, COM(2002) 107 Final of 21.2.2002.

4. *Energy*

Article 3(4) of the new Electricity Directive 2003/54/EC stipulates that when financial compensation or other forms of compensation are foreseen in relation with the fulfilment of PSOs and USOs in the sense of Articles 3(2) and 3(3), this shall be done in a non-discriminatory and transparent way.

B. *Direct financial support through the State budget*

One form of financing SGEI and USOs/PSOs consists in direct compensation of the provider charged with these special services and obligations through a Member State's budget. This compensation can take the form of direct payments to the provider or of other financial advantages, such as tax exemptions, that reduce the Member State's budget revenues. Such kind of financing is subject to scrutiny under the State aid rules of the EC Treaty.

Article 87(1) EC prohibits any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings, in so far as it affects trade between Member States.

In other words, this prohibition applies where a selective advantage is granted through State resources in favour of an undertaking and this does or may distort competition and affect trade between Member States.

1. *Activity of an economic nature*

In the sense of EC Competition law, an undertaking is any entity engaging in **activity of an economic nature**. This means that the State aid rules do not apply if the activity which is financed is of a non-economic nature so that the entity performing it does not constitute an undertaking in this respect.

2. *State resources*

Only those advantages which are granted **directly or indirectly through State resources**⁵⁸ are to be considered aid within the meaning of Article 87 EC. Advantages financed directly from private resources may have the effect of strengthening the position of certain undertakings but do not fall within the scope of Article 87 EC⁵⁹. The transfer of State resources may take many forms, such as direct grants, tax credits and benefits in kind. Also resources available to a public (i.e. State-controlled) undertaking⁶⁰ constitute State resources within the meaning of Article 87 EC⁶¹. Member States may, in some instances, finance an SGEI from charges or contributions paid by certain undertakings or users and the revenue from which is transferred to one or more undertakings entrusted with the operation of that SGEI. In this respect, the ECJ⁶² has held that funds which are financed through compulsory contributions imposed by state

⁵⁸ The word "State" should be taken to mean not only the central government but also all regional and local public authorities and public enterprises.

⁵⁹ E.g. a law by which the State obliges electricity grid undertakings to buy electricity from wind power plants at prices above market level, see ECJ judgment of 13.3.2001 in Case C-379/98 *PreussenElektra*.

⁶⁰ The concept of public undertaking is defined in Directive 80/723/EEC of 25 June 1980 on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings (OJ L 195, 29.7.1980), as last amended by Commission Directive 2000/52/EC of 26 July 2000 (OJ L 193, 29.7.2000).

⁶¹ See ECJ judgment of 16 May 2002 in Case C-482/99 *Stardust*.

⁶² See ECJ judgment of 2 July 1974 in Case C-173/73 *Italy v Commission*.

legislation and are managed and apportioned in accordance with the provisions of that legislation, constitute State resources within the meaning of Article 87 EC, even if they are administered by institutions distinct from the public authorities. Similarly, in its judgment of 11 March 1992 in *Compagnie Commerciale de l'Ouest*,⁶³ the Court confirmed that aid financed through parafiscal charges constitutes aid within the meaning of Article 87.

3. *Actual or potential distortion of competition and affectation of trade*

In order to fall within the scope of Article 87 EC, **aid must actually or potentially distort competition and affect trade between Member States**. These two conditions are often linked. Effects on competition generally presuppose the existence of a liberalised market, i.e. a market which is not, or no longer, reserved through a State-granted exclusive right to one undertaking but open to new entrants. This means that in the case of non-liberalised (i.e. monopolised) domestic markets aid will usually not be caught by Article 87 EC. However, aid granted to an undertaking operating on a non-liberalised market may affect competition if the recipient undertaking is also active on liberalised markets, and trade will be affected if these markets are in other Member States. According to the ECJ⁶⁴ when financial aid strengthens the position of an undertaking compared with other undertakings competing in intra-Community trade, the latter must be regarded as affected by that aid. This is so where the undertaking receiving the aid is actively involved in trade between Member States or participates in contracts awarded following a tendering procedure in several Member States. However, aid may also be of such a kind as to affect trade between Member States and distort competition even if the recipient undertaking, which is in competition with undertakings from other Member States, does not itself participate in cross-border activities. Where a Member State grants aid to an undertaking, internal supply may be maintained or increased, with the consequence that the opportunities for undertakings established in other Member States to offer their services to the market of that Member State are reduced. The relatively small amount of aid, or the relatively small size of the recipient undertaking, does not *a priori* mean that trade is not affected. In order to ascertain whether this criterion is actually met, each case needs to be examined, and in particular the structure of the relevant market, notably the existence or otherwise of lively competition, and the number of undertakings present.

This does not, however, mean that the Commission has to examine all financial support granted by Member States. Accordingly, on 12 January 2001 the Commission adopted Regulation (EC) No 69/2001 on the application of Articles 87 and 88 of the EC Treaty to *de minimis* aid,⁶⁵ which stipulates that aid amounting to less than €100 000 per undertaking over any period of three years is not caught by Article 87(1) EC Treaty. This Regulation is applicable to all sectors, with the exception of the transport sector and activities linked to the production, processing or marketing of products listed in Annex I to the EC Treaty, aid to export-related activities and aid contingent upon the use of domestic over imported goods.

In addition, while it is not possible to specify in advance all cases of aid that do not affect trade or competition, the Commission has nevertheless set out useful pointers in its decisions.

⁶³ Joined Cases C-78/90 to C-83/90.

⁶⁴ See CFI judgment of 29 September 2000 in case T-55/99 *Confederacion Espanola de Transporte de Mercancias*.

⁶⁵ OJ L 10 of 13.1.2001.

4. *Selective advantage*

If it is to constitute aid within the meaning of Article 87 EC, compensation granted through State resources must confer a selective advantage to the recipient. The selectivity criterion is met if the advantage is confined to one or a limited number of undertakings or to an individual sector.

With regard to compensation granted by the State to an undertaking entrusted with a SGEI and USOs/PSOs, the **basic principle** is that the EC State aid rules allow the compensation of the net extra costs incurred by that undertaking due to the performance of the SGEI and USOs/PSOs, but prohibit any overcompensation of these costs.

For a long time, the Commission took the view that compensations granted by Member States to the providers of SGEI and USOs/PSOs did not constitute State aid within the meaning of Article 87(1) EC if they only offset the special burden these providers had to carry due to the discharge of the SGEI and USOs/PSOs. In such a situation the providers would not receive a selective advantage but rather a compensation of a selective disadvantage they had in comparison with other providers.

However, in its judgments in *FFSA* of 27 February 1997⁶⁶ and *SIC* of 10 May 2000,⁶⁷ the Court of First Instance (CFI) held that such compensations constituted State aid. The CFI added that the grant of such State aid may escape the prohibition laid down in Article 87 EC provided the conditions of Article 86(2) EC are fulfilled. This means in particular that the sole purpose of the aid in question must be to offset the additional costs incurred in performing the particular task assigned to the undertaking entrusted with the operation of a SGEI and that the grant of the aid is necessary in order for that undertaking to be able to perform its PSOs/USOs under conditions of economic equilibrium. The ECJ⁶⁸ later also made clear that Article 86(2) EC does not allow derogation from Article 88(3) EC, which provides for prior notification and the suspension of aid until it is authorised by the Commission.

On 22 November 2001, the ECJ handed down its judgment in *Ferring*⁶⁹, which concerned the wholesale distribution of medicinal products in France. The ECJ stated that, where a tax exemption granted to an undertaking entrusted with the operation of a public service simply offsets the additional costs of the public service, the recipients do not enjoy an advantage within the meaning of Article 87(1) and the measure in question does not therefore constitute state aid. USOs/PSOs can entail additional costs that competitors do not have to bear and the compensation enables the recipient to be placed in the same position as its competitors. On the other hand, the amount of the tax exemption that exceeds what is necessary to discharge the public service tasks constitutes state aid.

The situation has now been further clarified by the ECJ's judgment of 24.7.2003 in the *Altmark* case⁷⁰ concerning compensation for the providers of local public passenger transport. The ECJ held that public subsidies intended to enable the operation of urban, suburban or regional scheduled transport services do not constitute State aid within the meaning of Article 87 EC where such subsidies are to be regarded as compensation for the services provided by the recipient undertakings in order to discharge public service obligations. For this, the ECJ requires the following conditions to be satisfied:

⁶⁶ Case T-106/95, [1997] ECR II-0229.

⁶⁷ Case T-46/97, [2000] ECR II-2125.

⁶⁸ See ECJ judgment of 22 June 2000 in Case C-332/98 *CELF*.

⁶⁹ Case C-53/00.

⁷⁰ Case C- 280/00.

- first, the recipient undertaking is actually required to discharge PSOs and those obligations have been clearly defined;
- second, the parameters on the basis of which the compensation is calculated have been established beforehand in an objective and transparent manner;
- third, the compensation does not exceed what is necessary to cover all or part of the costs incurred in discharging the PSOs, taking into account the relevant receipts and a reasonable profit for discharging those obligations;
- fourth, where the undertaking which is to discharge PSOs is not chosen in a public procurement procedure, the level of compensation needed has been determined on the basis of an analysis of the costs which a typical undertaking, well run and adequately provided with means of transport so as to be able to meet the necessary public service requirements, would have incurred in discharging those obligations, taking into account the relevant receipts and a reasonable profit for discharging the obligations.

In order to increase legal certainty and transparency in the application of State aid rules to SGEI, the Commission announced already in its Report to the Laeken European Council⁷¹ its intention to establish a Community framework on State aid in the context of SGEI. Accordingly, already before the *Altmark* judgment, the Commission had started to work on issues not directly related with the qualification of compensation payments as State aid or not⁷², while however the decision of the ECJ on this specific question had to be awaited. The delivery of the *Altmark* judgment now enables the Commission to consider the question, taking account of the basic decision as well as the various conditions set out in that judgment.

PART 6: ROLE OF THE COMPETITION AUTHORITY / OF THE REGULATOR

The OECD questionnaire voices concern that USOs/PSOs often create entry barriers or payments from new entrants to incumbents, thus having a significant impact on competition and the efficient provision of services. It also mentions that USOs/PSOs are frequently used as a justification for otherwise abusive behaviour by incumbent operators. The Questionnaire therefore asks for the appropriate role of a competition authority with respect to USOs/PSOs.

In principle, even undertakings performing USOs/PSOs are subject to the full application of the Competition rules. However, where USOs/PSOs serve an SGEI and the full application of these rules would endanger the performance of that SGEI with which the undertaking concerned had been entrusted by the State, Article 86(2) EC provides for a derogation from the full application of EC rules to the extent necessary to ensure the good functioning of the SGEI including the USOs/PSOs (proportionality rule).

In the **Telecom sector**, there have been no relevant antitrust cases involving USOs. The Member States' independent regulatory authorities should liaise with competition authorities where there are specific competition concerns.

⁷¹ Report to the Laeken European Council, COM(2001)598 of 17.10.2001.

⁷² Issues such as the definition of SGEI and the freedom of choice of Member States, conditions for the application of Article 87 EC (e.g. activity of economic nature, effect on trade), the relationship between public authorities and undertakings entrusted with SGEI.

In the **Postal sector**, incumbents often use their power in the SGEI and USO markets in order to strengthen their position in markets outside the USO which are in principle the most competitive ones. This can happen by means of cross-subsidies, logistic support, tying of USO and non-USO products and so on. The Commission has adopted several decisions in the last three years dealing with this kind of problems⁷³.

In the **Transport sector**, the competition authorities will continue to take an interest in the potential for anti-competitive behaviour in the provisions of SGEIs arising both from structural defects in the sector in question and in relation to individual cases. On the former, the availability of in-use rolling stock is obviously a key factor for third parties competing with an incumbent for the right to provide railway subsidised passenger services under fixed term contracts⁷⁴. As far as individual cases are concerned, there will be a continuing need for vigilance in relation to e.g. the impact of consortium bids, rigged bidding, etc.

With regard to the **electricity and natural gas sectors**, the fact that USOs and PSOs should be implemented in such a way so as not to hamper competition at all, or at least not in disproportionate way, is foreseen in the "acceleration directives". This requirement is stated both by reference to the appropriate EU competition rules, as well as by incorporation of competition principles into the directives explicitly.

PART 7: INDUSTRY-SPECIFIC QUESTIONS

I. Telecommunications

There has been some discussion about whether it is appropriate to include **mobile services** within the concept of USOs, in particular in candidate countries where the fixed network may not have such widespread territorial coverage. Although, the USO concept is intended to evolve, it is primarily intended to cover services which are necessary for ensuring the minimum level of basic services, in particular where the market would fail to provide the services at all or at an affordable price. The cost of building out mobile networks are much lower than a fixed network and in all Member States there are a number of mobile operators competing to provide services on the basis of price, coverage and quality. As a result, mobile telecommunications services are not considered as appropriate for definition as an USO.

As concerns **broadband internet services**, the Universal Service Directive⁷⁵ specifies that Internet access should be sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility. If the majority of customers are using ADSL technology, there could be an argument that broadband access should be rolled-out across the rest of the network.

The **cost of connection** needs to be affordable – in practice this often means that it is uniform. The telecommunications market in the EU is fully liberalised and therefore any operator can provide the connection. However it is not possible to duplicate the whole fixed network.

⁷³ Commission Decision 2001/354/EC *Deutsche Post AG*, OJ L 125 of 5 May 2001, page 27; Commission Decision 2002/180/EC of 5 December 2001 relating to a proceeding under Article 82 of the EC Treaty (*De Post-La Poste*) OJ L 061 of 2.3.2002, p.32 –53.

⁷⁴ See, for example, *Towards an integrated European railway area* COM(2002)18 final of 23.1.2002, p.32.

⁷⁵ Universal Service Directive 2002/22/EC in **Electronic Communications** (OJ L 108, 24.4.2002, p. 51).

II. Transport

In the transport sector, it is for each Member State to decide, as a matter of subsidiarity, which authorities within its territory are to be responsible for procuring/subsidising SGEIs and how the services should be funded. Withdrawal of services is also for Member States to decide.

SUMMARY OF THE DISCUSSION

Introduction

The **Chairman**, Alberto Heimler, initiated the roundtable by noting that non-commercial service obligations (NCSOs) exist in order to provide services of a defined minimum quality at a reasonable price for a defined class of users. Without such obligations, either the service would not be provided or it would be provided at much higher prices. Any non-commercial service obligation needs to be accompanied by some price limitation that often, but not always, prices below costs. A competition problem exists because the existence of a price limitation is used as a justification for preventing entry. If there are no price limitations then such obligations can be imposed on all market participants and, in general, they would be competitively neutral. For example, in Italy there is an obligation on all newspaper kiosks to carry all newspapers that are published in the country. Such an obligation is imposed on all kiosks and it binds all market participants but it is not covered by a price limitation. In some sense it is a NCSO because without the obligation the objective would not necessarily be reached. However such an obligation does not raise any competition problem. The discussion is therefore about those NCSOs that are not competitively neutral and raise competition problems.

Postal Service Experts

The **Chairman** continued, noting that the roundtable would begin with a discussion of universal service obligations in postal services. The problem in the postal sector is that the postal service obligations have often been cited as a justification for not allowing entry. The U.S. submission cites quite a number of obligations that bind a postal operator. One of them is the obligation to serve the whole country with a single tariff. There are good reasons to keep the obligation. As the background paper argues, if a postal service operator reduced its service to cover only 99% of destinations, customer uncertainty about which destinations are unserved may lead customers to seek other means of reaching served destinations. The fact that the price of stamps is low and the transaction costs of gaining information about which destinations are served may be comparatively high could generate a substantial loss in demand from uncertainty over served destinations. Universality has the benefit of eliminating the uncertainty so that sales increase. In short, confidence in the universality of service may enhance sales, and these enhanced sales should be considered when evaluating the costs of providing a universal service. The problem here is whether it is possible to maintain the obligation to cover the whole country, while at the same time introduce greater competition.

Robert Cohen from the U.S. Postal Rate Commission (PRC) addressed the issue of whether opening postal services to competition would create a “graveyard spiral”. If entry is permitted, the entrant can take advantage of the fact that the incumbent has both profitable and unprofitable routes by cream skimming customers from the most profitable routes. The incumbent will then have to raise its prices, since less cross subsidy is possible, and this increase in prices will provide additional opportunities for cream skimming by the entrant. This process of price increases followed by additional cream skimming could be repeated until the incumbent could no longer provide service to the unprofitable areas. This would be a “graveyard spiral.” Cohen argued that a graveyard spiral would not arise in practice.

Entry has been permitted in Sweden and New Zealand, but no graveyard spiral has occurred. Sweden's main postal service delivers five days a week while its competitor, CityMail, delivers every third day. In neither Sweden nor New Zealand do the incumbent postal services face very great competition.

The economics of a graveyard spiral depend on how many pieces of mail are delivered per capita. In the US, there are 700 pieces per capita, Finland has 600, northern Europe, Canada and the UK have about 300, Germany has about 250, and Southern Europe has about 100 per capita. Costs rise as posts lose volume slowly at first, but as the volume per capita reaches small values, a small loss can lead to a significant rise in costs. This suggests that different policies may be appropriate for small countries as opposed to large countries.

If routes are relatively equally profitable, then the likelihood of a graveyard spiral is low. In the US, Cohen states that the most profitable 10% of routes generate 50% of profits, while the least profitable 10% of routes generate 50% of losses. The rest of the routes are relatively close to break even.

In the basic case, imagine an entrant has equal efficiency to a postal service. Worksharing decisions are based on lowest cost provider, so the amount of mail that could be delivered to a delivery cream skimmer might be about 21% of all U.S. mail, as of 2002. This is based on a cost comparison between the private sector doing the work and the postal service doing the work. In the worst case, 44% of routes would be skimmed, requiring a 25% price increase.

If an entrant is more efficient than the postal service, cream skimming will be greater. At the lowest volume, 36 b pieces of 200 b at 60% efficiency level, would need 2% price increase. If the entrant had costs that were 20% of incumbent cost structures, 122 b pieces would move to the entrant, with an increase of about 78% in prices for the incumbent, but the postal incumbent still would not enter a graveyard spiral. Even after cream skimming, therefore, Cohen believes price increases would be moderate and that no graveyard spiral would ensue. The worst case would be that of a 66-cent stamp versus a 34-cent stamp. Cohen conjectured that most developed countries would not experience a graveyard spiral. These results are most sensitive to how much contestable volume there is and are less sensitive to efficiency.

David Stubbs from the European Commission, DG Internal Market spoke about European postal services. One important point to observe about the European Union postal market is that the countries are highly diverse. Therefore, a model of entry on universal service must be sensitive to these differences. The nature of the model will have many fixed assumptions related to the postal service. The model just discussed has limitations because the assumptions appropriate for the U.S. analysis are likely different from those that would be found in both current and future members of the European Union. There are highly profitable services and loss-making services. There are postal services with letters per capita of about 50, some with about 450. There are flat and mountainous areas, as well as high density and low density areas. The result is that postal services may not be comparable.

The European Commission has set up a regional model to handle diversity based on the idea of a harmonized minimum universal service. The European Union is moving towards opening on a gradual basis, reducing limits to 50 grams in 2006. National regulatory authorities have been created, performing price control and overseeing entry.

Subsidiarity of member states has allowed postal services to evolve based on local conditions. A uniform national tariff has been adopted in all member states, though is not a minimum requirement by regulation.

General comments

A delegate from the **Netherlands** asked Mr Stubbs whether full liberalization in Europe would be possible without affecting the non-commercial services. **Stubbs** responded that it is not a question that is simple to answer generally or without current information. In some member states, markets may be opened before 2009.

The **Chairman** noted that Italy has experience with competition cases about the practice of remailing, sending invoices by email to another country, and then sending them back to Italy. This practice is prohibited by postal union codes. But in terms of competition, it is a practice that should be allowed and promoted as long as the delivering postal service is reimbursed for its costs of transport and delivery. So prohibition of remailing may not make much sense. Allowing remailing could help to open markets and increase competition.

Stubbs said the European Commission is planning to undertake a study about universal services but did not wish to make any more general claims.

A delegate from **Australia** asked why prices cannot be raised for unprofitable services and lowered for profitable services? In remote areas could there be charges for receiving mail, for example.

Cohen said graveyard spiral argument depends on uniform tariff. Without a uniform tariff, prices could reflect costs. But uniform tariffs exist in general. Bulk mail tariffs could vary by high cost/low cost area, but that has not happened yet. If prices were varied, there would be a much more economically efficient system.

A delegate from the **U.S.** asked to what extent the success of liberalization depended on flexibilities given to the incumbent. In many of the countries where there has been liberalization, postal services have been allowed to expand services to include banking, for example. In US, though, it may be that the postal service would not be allowed to diversify. So to what extent would giving the incumbent freedom be necessary to increase that ability to provide universal services?

Cohen stated that he does not believe that a cross subsidy from banks to post is necessary, even if banks do exist with the liberalized postal services. Citymail has managed to capture 30% of mail in markets served, but only a 5% loss in share from incumbent. In New Zealand, have been free to set rates, but activities in other services have not been necessary to support universal service obligations.

Stubbs said flexibility has been used to create global businesses and has been beneficial, but has not been necessary to run universal service obligation. Postal services now have most prominent worries about e-substitution. The benefits of incumbency need to be considered. These benefits may already be so substantial that it is difficult for competition to develop.

Cohen stated that because of liberalization of the upstream market, the private sector has grown to play a large role in U.S. postal delivery, with 25% of the upstream market for U.S. postal service. In a sense, the U.S. market is now the most liberalized in the world, although the U.S. Post Office still has a monopoly on delivery and fully regulated prices. This development has taken a long time: U.S. started liberalizing its market in 1976.

General concerns with non-commercial service obligations

The **Chairman** thanked all the countries that provided a report, because these reports illustrate the differences in treatment of non-commercial service obligations. He stated that one should first start with the definition of NCSO. This is very critical with respect to the competitive outcomes. For example if

the definition of NCSO is based on inputs (type of phone connection) and not on outputs (providing voice telephony) technological choices are constrained which imposes too high a cost on the system. In some cases a too-restrictive definition of universal service obligations may restrict the number of possible providers, strongly reducing competition for the market.

Definitions

The **Chairman** noted that Norway placed universal service obligations in regional transport to provide services to remote airports with small runways. The bids for such services were organized by identifying, in the bid process, the characteristics of planes that had to be used for certain airports. The characteristics effectively limited the bidding to one airline for a number of routes.

A delegate from **Norway** responded that the politics of 1970s focused on ways to maintain local societies in remote areas. The focus was primarily on the needs of local societies and not on the cost of serving them. This is the background that gave rise to the network system transport obligations in the 1970s. Originally, there was only one airline, Widerøe, now a carrier in the SAS group. Now rights and obligations are distributed by tendering for 10 areas. The ministry of transport stipulates fares, number of seats, and frequency. These standards were based on the services that previously existed in a given area. Carrier that offered the lowest route area subsidy received the right to serve the area. If a carrier were to state it would provide the service on a commercial basis, then the route would likely be opened to competition. The first tendering was in 1996 for 1997-2000 and resulted in a decrease of subsidies by 20-25%. But it also became obvious that there was not much competition to the incumbent, so that in the next round of bidding, the bids for subsidies increased substantially. The ministry had rearranged route areas, and eliminated the 30-seat pressurized cabin requirement on 25-30% of routes where it was financially justified. The ministry is considering eliminating the 30-seat pressurized cabin requirement on all routes. This would be one way to increase competition. But it is also politically controversial and subject to parliamentary review. Another way to increase competition would be to increase the contract period above 3 years. Article 4 Council Regulation EC 2408/92 limits the contract period to a maximum of 3 years. Such a short contract period does not provide much incentive to new carriers if they must make large investments in new planes and establish an organization in airports. Thus the potential for new entrants is unnecessarily small because the 3-year requirement acts as a barrier to entry. In industrial shipping, contracts are often 10 years or more. It is worth discussing in the EU and EEA the idea of changing the 3-year limit on contracts.

The **Chairman** noted that the U.S. has prepared a very thorough submission, in which a general overview is followed by a quite detailed description of NCSO in energy, post and TLC. The issue of funding of NCSOs is addressed in a general way in the first pages of the U.S. contribution. In particular the report discusses how choosing an appropriate source of funding would affect efficiency in production and consumption. The Chairman requested that the U.S. delegation elaborate on these issues, first of all illustrating the different degrees of efficiency associated with different sources of funding. The Chairman noted that it would be interesting to understand better from the U.S. whether arguments based on allocative and productive efficiencies have some hope of being valid arguments in a political debate.

A delegate from the **U.S.** stated that it is difficult to say whether allocative and productive efficiencies would be most relevant for changing rules. Past changes occurred because strikes were crippling the postal service. There is no comparable political urgency for change at the moment. The President's Commission operating for the last 6-8 months performed a survey of consumers, who were generally happy with the services received. Attempts at liberalization have not achieved consensus up to this point, although a recommendation has now been produced by the President's Commission.

Chairman noted that reducing non-commercial service obligations is quite difficult. Once a decision is made to start an obligation, the obligation is very difficult to eliminate. The European Commission's submission is important in terms of definitions together with very interesting descriptions on the extent and on the limits of EC intervention possibilities. The submission enumerates NCSO as applicable to major public utility services (telecommunications, electricity, transport, gas and post). The interesting feature of the European system is that the EC does not give any indication of how best to finance a NCSO (which is left to the decision making of Member States), except for the fact that financing should be competitively neutral. Nor does the Commission say whether some NCSOs, like directory services, should be supplied just by one or by all operators. Finally the introduction of an NCSO is allowed, for example in transport, irrespective of the degree of intermodal competition, so that a full market analysis for the need of NCSO is missing. However the Commission indicates in the report that some important developments are underway. Could the Commission inform us about these new developments?

The **European Commission** stated that services can be provided by more than one provider providing that the whole country is covered by a universal service. All questions posed must be examined sector by sector. There are obviously different possibilities for finance and state aid. Compensation is permitted for extra net costs arising from the universal service burden. This is an illustration of a general principle of "no overcompensation." If there are on the market different providers, and only some are required to fill a universal service obligations, their competitors may have to provide them with payments to equalize this contribution.

Important developments are under way. In telecoms now, the European Commission has a new and comprehensive system with a universal service fund and the possibility of state aid. The European Commission is reducing the limited area of post. In transport, the regulation of 1969 is old. Our proposal for an amendment would see a tendering procedure with 5-year exclusive rights. In electricity, overcompensation is disallowed, but certain compensation, if it meets very strict requirements, is not even state aid.

The **Chairman** noted that paper on access pricing has a chapter about the concept of costs. Policymakers often speak as though costs are easy to measure. This is not true. That is not to say that costs cannot be measured. But the difficulty of measuring costs will apply equally to universal service obligations as to other areas of costs. There is a strong asymmetry of information between the firm and the possible deciders about cost. Australia discusses at some length Community Service Obligations which are defined as requirements on a public enterprise to carry out activities that it would not otherwise undertake and that any other business would only undertake at higher prices. The Chairman stated he thought this was the right approach. But the question is how to implement this test. How can you know the price charged by a competitor in the market for a given activity without a bidding process? If you revert to a bidding process how can you make sure that there enough participants? As an example, the Chairman requested that Australia elaborate on how the payment is decided for the State Transit Authority.

A delegate from **Australia** responded that the framework for policies related to non-commercial service obligations, or community service obligations (CSOs) is governed by an agreement under the 1995 national competition policy arrangements. Under these principles, CSOs should be transparent, directly and fully costed, and funded by governments from their budgets. CSOs have common key elements. A CSO exists based on a government directive to a trade enterprise, where under the same conditions of service, the same service would not have been provided under purely commercial grounds, and a CSO must have an identified social benefit. Under the arrangements, jurisdictions have no requirements to undertake competitive processes. Bidding processes could be helpful in solving the cost estimation problem and allocating the provider. CSOs have generally been awarded to incumbent providers. The state transport authority in New South Wales, for example, has difficulty finding alternative providers. This may not be

true for buses or ferries. We have used the avoidable cost method (extra cost and extra revenue incurred by enterprise with CSO), but some state agencies would use revenue foregone methods that we recognize are not ideal. It is extremely important to keep the CSO arrangements that have been adopted under review. That is one of the features of our system. We have an independent body, the National Competition Council, that produces annual reports on the national competition policy arrangements in general, including CSOs.

The **Chairman** noted that Portugal in its submission refers to the law on the alienation of public property. The Chairman requested that the Portuguese delegation explain how this law influences the provision of NCSO by new entrants and how it affects the bidding mechanism and the funding of NCSO.

A delegate from **Portugal** responded that concerns with public service obligations have not been neglected at privatization stages. However, the ideals have been modified in a pragmatic way to reflect legal changes with reform. Public service obligations for post and telecom have been awarded for periods of 25-30 years. However, as the liberalization progresses, what has been interesting is how is the government responds to claims by the newly private companies that they are providing a PSO. The government may well consider tendering a service at a given price. The targeting charge has to be made more transparent in cost-based compensation. The objective is to move away from the syndrome that monopoly rents are justified because they allow the maintenance of PSO. The law of alienation of public property refers to the possibility of selling telecom infrastructure to the incumbent. Until 2002, the telecom incumbent was entrusted with management of infrastructure. At the end of the last fiscal year, the infrastructure was sold to incumbent for fiscal reasons. At this moment, provision by an entrant is not an issue, because the historical operator has been entrusted with this obligation for a long time. The law does allow for the tendering of non-commercial service obligations ultimately.

The **Chairman** asked for a clarification of whether the telecom infrastructure was initially owned by the state and managed by the concession.

A delegate from **Portugal** responded that until last year, Portugal Telecom was a concessionaire. Because of budgetary pressures, the infrastructure was sold to the incumbent. This change certainly does not favour future entry.

Sectoral discussion – Transport

The **Chairman** noted that many submissions refer to the anticompetitive role that NCSOs can play. Japan's contribution is very important in this respect because it refers to exemptions to the competition act with respect to the provision of NCSO. The Japanese submission mentions the fact that in order to maintain transport service on a regular basis for disadvantaged areas in Japan, companies are allowed to organize themselves into a cartel. The Chairman wondered whether these exemptions to the competition act are really necessary. Would it not be better to provide for special and exclusive rights and auction them out to minimize the amount of subsidies required? The Chairman requested a further explanation of the purpose of these cartels?

A delegate from **Japan** explained that legal systems exist for exempted cartels in transportation services for buses, marine and aviation transportation in Japan to secure lifeline services that are necessary and indispensable for rights of residents in local areas where population is decreasing and demand is dropping. Such cartels are allowed only when the concerned ministry approves them after consulting with the Japanese Fair Trade Commission. In this way, both the regulator and the competition authority check the necessity of such cartels case by case. Therefore abuse or misuse of the exemption system is prevented. At present, only one cartel for lifeline services exists and this is for bus service in Okinawa prefecture, one island of Japan, that is exempted from the anti-monopoly act, the Japanese competition law. Therefore the

negative effect of such cartels on competition is very limited. The price of services is regulated for bus services by the ministry that is concerned. The price functions only as a price cap. Companies can set the price below the cap if they choose.

The **Chairman** noted that many of the submissions that discussed rail have shown that non-commercial service obligations are often specified with respect to how the service will be provided, e.g. by rail. There is not much experience in which such subsidies are provided regardless of the means of transport utilized. In many cases, buses are a good substitute for rail and provide frequent and regular services. They might be good substitutes as services to consumers. Especially in transport, such subsidies and obligations are imposed on the input, irrespective of the substitutes that may exist. The Czech Republic, for example, determines subsidies to rail without regard to other services. The chairman asked for any countries that did not specify the input for transport to discuss this. No delegates raised their flags.

Sector Discussion – Telecommunications

The **Chairman** raised the issue of the standard of proof used for estimating the losses for the former monopolist because of NCSO, should the market be opened to competition. This is particularly important in telecommunications. In the background paper reference is made to Deutsche Telekom, the incumbent wireline telephone service provider in Germany. If Deutsche Telekom claims that a service is unprofitable, then that service is put up for auction to see whether it can be provided at a lower cost by any other providers. Deutsche Telekom has never claimed a service to be unprofitable which may give some idea of the extent of unprofitability of such services. Note also that when the incumbent can lose some market power when services are put up for auction, they are reluctant to claim payment. A similar outcome, even though not because of the same process, characterizes British Telecom (BT). OFTEL estimated that the benefits, such as reputation, from non-commercial service obligations far exceed their costs, with £ 100-150m in revenues versus £ 45-65m in costs. All this implies that such obligations may be necessary, but they do not need to be funded by competitors. Different countries may find different results in this kind of analysis. Italy has funds for obligations to reimburse Telecom Italia. In Italy, a study was undertaken of whether Telecom Italia would profit from providing a non-commercial service obligation. The study's conclusion was that the provision of the service was costly. Denmark in its submission reports that the incumbent telecom operator has to fulfil a NCSO but is not reimbursed. Why is this so? Why is it that Telekom DK has not asked for funding?

A delegate from **Denmark** responded that in Denmark, as in Germany, there is a regulation such that it is possible for the service provider to receive subsidies if they are able to document the true deficit to the telecom regulator. In contrast to Germany, as Denmark is a small country, the telecom provider would not limit the request for aid to geographic areas but rather to particular services, such as emergency communications services. Up until this point, the telecom operator has not sought subsidies for any potential deficits, possibly because of economies of scope. If they were able to prove deficits then, as in Germany, the service would be put up for auction. But somehow they manage to keep the system up and running.

The **Chairman** commented that these examples were important because they illustrate how regulation can be effective in reducing the funding of an incumbent by competitors and increasing the amount of competition. Of course the issue of costs/benefits of NCSO in telecommunications for example strongly depends on the density of the population in the country. For example, the situation in Italy, a densely populated country, may be quite different from that in Canada, a very sparsely populated country. In countries that are not densely populated, the difference between funding rural and urban customers may be quite substantial. Canada has quite an elaborate funding mechanism for its NCSO. In particular any firm that serves high cost areas would be eligible for the subsidy, not just the incumbent operator. This is fine when a new area is not served and needs to be served. However when lines are already there, how is the

subsidy mechanism managed? Can a new entrant take service away from an incumbent's area? How would this work, since many of the costs are fixed costs?

A delegate from **Canada** responded that universal service is defined as affordable high quality service accessible in all areas of the country. This has long been one of the key objectives of Canadian telecommunications policy. The Canadian Radio and Television and Telecommunications Commission, or CRTC, has implemented a large number of decisions over the last decade governed by the universal service framework to reflect opening of markets to competition. Today, it is a regimen much more tightly focused on high cost areas such as northern and rural Canada and the total contribution required has been lowered through measures such as rate rebalancing. Rates have been adjusted to more accurately reflect the true costs of services. In high cost areas, this means that rates for local services are higher than they were previously, although for many customers, the fall in long distance rates, triggered by competition, has offset this increase. As rates become more reflective of costs, the need for subsidies has decreased. The regime is technology neutral and fully portable, meaning that any service provider who can meet the basic service requirement in the designated high-cost areas is entitled to a subsidy. In 2001, the CRTC approved the incremental costs with which the subsidies for servicing high-cost areas would be calculated. This included the adoption of a uniform approach to identifying the high-cost servicing areas in the territories of the major incumbent local exchange carriers and a more consistent set of costing methodologies for determining the incumbent local exchange carriers cost of residential primary exchange services. High-cost areas are divided into three distinct categories for which costs and corresponding subsidies have been set: one, communities with less than 1500 lines; two, communities with between 1500 and 8000 lines and an average loop length of more than 4000 meters; and three, remote communities without year-round road access.

The **Chairman** noted that, like Canada, Chinese Taipei has a system of bidding for NCSOs in telecommunications. Can a new entrant serve only part of the country? Has the system functioned well in the sense that new entrants have become suppliers of NCSO?

A delegate from **Chinese Taipei** responded that in 2001, the ministry of transportation and communication published a regulation on telecommunications universal service. The regulation was implemented last year. According to this regulation, the operational areas are divided into two kinds: general operational areas in which a new entrant can compete with the existing enterprise under normal business conditions; second, an economic area where a new entrant and existing enterprise bid to become the universal service provider. The regulator reviewed the implementation plans submitted by the new entrants and the existing enterprise and then decided who would be the universal service provider in specific uneconomic areas. The uneconomic areas are divided into several units. So it is not necessary that new entrants would serve the whole country. Each year, the enterprises who wish to provide the service should submit a universal service annual implementation plan to the regulator. There are some uneconomic areas that are run by new entrants, but most of the uneconomic areas are still run by the state-owned enterprise. In this year, all the fixed-line telecom operators had to share the cost incurred in providing universal service obligations in 2002, which means that most new entrants have to pay fees to the incumbent through the telecom universal service fund. Last week, the regulator reviewed the implementation results and published the amounts each telecom operator should pay. We are not clear on the new entrants' feelings about the contributions they have to make at the moment. Whether they would argue there is overcompensation would be an important indication of the success of implementing telecommunications regulation.

The **Chairman** noted that many countries seem to consider only the cost of the obligation and not the benefit that the incumbent operator receives in terms of better reputation, brand image and the like. The chairman asked Austria (as a representative of many other delegations that have very similar systems) to explain their practice (which is to share the cost of NCSO with other market participants) and whether

they are considering any change in terms of the definition of NCSO in telecommunications and also of its funding?

A delegate from **Austria** responded that under domestic law, there is a possibility for the provider of universal service obligations to request reimbursements for costs if they represent an unfair burden. The financing is via a universal service fund. All providers of telecommunications have to pay into the fund if they have a minimum revenue of 5 million EUR. Their contribution is calculated according to their market share. The costs are calculated considering the costs of provision and the benefits of provision. On the subject of changes, Austria adopted a new law this summer to reflect recent EC regulations, so it is unlikely that there will be any further changes very soon.

The **Chairman** noted that most countries define NCSOs irrespectively of the fact that such services can be provided by all market participants (for example directory assistance or access to emergency numbers or switching services for the hearing impaired). Very often the incumbent operator is the NCSO operator by law, even though multiple operators could provide the service. Does the definition of NCSO take into consideration the possibility of multiple suppliers? In that case no funding would be necessary, or only partial funding would be necessary. Switzerland reports of a tendering system where the implicit assumption is single supply. Was it ever considered to see whether all market participants would provide at least some of the NCSO?

A delegate from **Switzerland** responded that in 1998, a system was introduced for concessions for non-commercial services in telecommunications with the liberalization of telecommunications. A concession is attributed to one operator in a periodic auction. This does not mean that this service cannot be operated in competition. Every operator can offer the service on commercial terms. But only the concession operator is required to provide the service for the entire country. This ensures the services will be provided. Experience has shown that it is difficult to find new operators who will provide the service over the entire territory of Switzerland. In fact, the former monopolist is the only operator that applied for the concession for universal services for the period of 2003-2007. Because of this, in a recent change to the law, it has been allowed that, in the future, firms can apply for concessions at the regional level.

The **Chairman** then noted that, while the United Kingdom had not submitted a country contribution, they did have recent experience with the liberalization of directory services. In particular, the chairman asked for an explanation of the reasons for the liberalization and the results of the change.

A delegate from the **United Kingdom** responded that liberalization of the UK directory enquiries market is still in its early days. Previously, these services were delivered by the network operator, essentially BT, using 192 for domestic enquiries and 142 for international enquiries. OFTEL and OFCOM, as they are now, were aware that there were concerns about the quality of these services. These services would provide one phone number and then a second phone number, but then users would have to redial for further enquiries. BT would not provide the address or any other help. So there seemed to be scope for further developments in terms of service quality. The regulators announced a decision to open the area up for competition to see whether there was a genuine alternative to BT running these services. A large number of firms offered to take up this opportunity. All were required to start with a six-digit number, compared to the 3-digit numbers of the past. All the six digit numbers started with 118. However, no one was allowed to bid for 118192, which would provide a hangover from past relationships. The switch from 3 to 6 digit numbers will, in time, open up additional dial codes for other use. There are now several dozen services offering directory enquiries, with costs ranging from 20p on upwards compared with what used to be about 50p for a normal call. BT chose to go with 118150, Cable and Wireless NTL chose 118160, and an entirely new entrant chose 118118, which seems to be one of the most popular numbers in terms of advertising. A system of dual-running was introduced so that consumers who did not know the change had happened would still be able to receive service. That process worked on a rotating basis so that a call was

diverted from 192 to one of the new services, each in turn. This diversion will be eliminated ultimately, with the telecom regulator deciding the best time to do that. It is clear that many of the operators have taken the opportunity to extend the offering to the consumer. The UK consumer's associations reviewed the offerings available to provide a guide to consumers over which services might be the appropriate for different purposes and with different call origins. This has increased the range of options, especially for motorists who often want their calls connected, rather than having to dial a number while driving. In conclusion, there has been no shortage of offerings to take on what was initially seen as a non-commercial service obligation. Over time, the market will likely force some of the new providers out of service while others will change what they offer.

The **Chairman** noted that the bill comes from customer's network supplier. But it is not required that customer's use their network supplier as the provider.

Sector Discussion -- Postal service

The **Chairman** referred to the U.S. submission that especially for Post discusses at some length the extent of the NCSO (you can look at pages 27 and 28 of the U.S. submission). The list of obligations is quite long and includes the fact that service has to extend to the whole country with six-day delivery and quite a number of preferential rates. The preferential rates are often related to publications. The submission states that the degree of competition in post has substantially increased in the last decades, however NCSO seem to have remained quite stable. Don't you think that a reconsideration of NCSO could be achieved? It seems to me that technological developments, like e-mails and the internet, have made many of these obligations a bit obsolete. Politically however nobody is willing even to discuss what might end up (although with a low probability) a reduction in services?

A delegate from the **U.S.** stated that the president's commission survey did not suggest a desire for changes among customers. In Alaska, for example, consumers depend on the U.S. Postal Service for much more than letters, including packages. The service has considered the possible reduction in the number of days. Some senders have preferences for certain days, other for other days. Reducing one day for some customers would be difficult at the moment. If politicians start to feel that they would have to put the U.S. Postal Service as a direct item on the federal budget, that could also be the time to address the full extent of the service obligations.

The **Chairman** asked about why home mailboxes should be a reserved area in which no one can deposit items except the post office. In most other countries, the mailbox is not reserved to post office use. The Chairman observed that this seems like an important element of restraint for the type of competition that might exist.

A delegate from the **U.S.** noted that the President's Commission looked at the possibility of opening up boxes. One possibility would be to charge for access to the box. Another would be to allow users to put a sticker on their boxes stating whether they would allow the boxes to be used by other delivery services, such as FedEx or UPS. This is something that could happen in the future. Another issue that has been raised by consumers is a security concern about who has the right to put items in their box. Since the anthrax events, there have been worries that allowing too broad an access to the box could create dangers.

The **Chairman** noted that the new EU directive has substantially reduced the area that can be reserved to domestic monopolists. Now 100 grams and three times the price of the fastest standard category have been identified as the reserved area. From 2006 the reserved area will be 50 grams and 2.5 times the above-mentioned tariffs. This implies that NCSOs are related to the delivery of simple correspondence, no packages whatsoever. The Chairman requested comments on whether the

developments in telecommunications and in the Internet have already created substitute services that make such reserved areas in post obsolete. The Chairman also asked about the importance of employment in postal services.

A delegate from the **European Commission** noted that many operators have raised technological substitution as a more salient threat to them than the advent of competition. If you look at the Swedish market, for example, Sweden Post declares that its loss in 2002 is related mostly to e-substitution. In some member states, e-substitution is developing to greater extents than others. The Commission recently produced a study of postal employment, finding about 5 million jobs related directly or indirectly to postal services in the European Union. Employment does not appear to have suffered as a result of modernization of the sector. Most of the employees are civil servants who cannot be redeployed very easily.

General discussion

The **Chairman** opened the floor to general comments and observations on the topic of non-commercial service obligations.

A delegate from the **Netherlands** asked about directory enquiries in the UK. While there is competition in directory enquiries, the question, is what obligation does British Telecom have to share its information about customers.

A delegate from the **United Kingdom** responded that part of the contract which governs the operators includes access to a common database. Operators are permitted to add additional information of their own to the database. For example, operators may seek to add value-added services to motorists, such as delivery of flowers as part of a directory enquiry when someone will be late to their destination.

Chairman's Conclusion

The **Chairman** concluded that the discussion was interesting and important. It showed how an issue that is not typically perceived as an antitrust issue can be an antitrust issue, as entry is restricted in the process of providing many non-commercial service obligations. Irrespective of the fact that services may be non-commercial, there are some ways of providing a service that are more competitively neutral than others, such as allowing multiple suppliers. There are also different ways of financing, such as leaving financing to an incumbent operator. The experience of Denmark and Germany, introducing bidding for services that are claimed as non-commercial, is a powerful force for limiting the possibility to receive funds from false claims. Furthermore, in the discussion on post, there are few experiences where services have been liberalized. However, from the studies presented, it did appear that non-commercial service obligations are consistent with a competitive environment. The experience of Sweden and New Zealand lead us to optimism for post.

The way non-commercial service obligations are defined is closely related to the competitive outcome that can be achieved. This is the case with Norway for example, as planes are defined with respect to size and type, as well as the length of the exclusive right. Rail and buses are frequently substitutes to at least some degree, so it would be a good idea to relate the non-commercial service to the output of transport between two points. The same is true of mobile versus fixed-line telephony. The paper will be slightly revised and then put out as a general distribution document. The Chairman thanked the secretariat, the two panellists, the delegates, and the regulators who accompanied their delegates for making the roundtable a success.

RÉSUMÉ DE LA DISCUSSION

Introduction

Le **Président**, Alberto Heimler, lance la table ronde en indiquant que les obligations de services non commerciaux ont pour but d'offrir des services d'une qualité minimale définie à un prix raisonnable pour une catégorie définie d'utilisateurs. En l'absence de ces obligations, le service ne serait pas fourni ou le serait à des prix beaucoup plus élevés. Toute obligation de services non commerciaux doit s'accompagner d'une limitation de prix à des niveaux qui souvent, mais pas toujours, sont inférieurs aux coûts. Cela pose un problème de concurrence car l'existence d'une limitation de prix sert à justifier l'interdiction d'entrée. S'il n'y a pas de limitations de prix, ces obligations peuvent être imposées à tous les participants du marché et, en général, elles sont neutres du point de vue concurrentiel. En Italie, par exemple, tous les kiosques à journaux ont l'obligation de vendre tous les journaux qui paraissent dans le pays. Cette obligation est imposée à tous les kiosques et concerne tous les participants du marché, mais elle n'est pas couverte par une limitation de prix. Dans un certain sens, c'est une obligation de services non commerciaux car, en l'absence d'obligation, l'objectif ne serait forcément pas atteint. Cependant, cette obligation ne pose pas de problème de concurrence. Le débat porte donc sur les obligations de services non commerciaux qui ne sont pas neutres du point de vue concurrentiel et qui créent des problèmes de concurrence.

Experts des services postaux

Le **Président** continue en précisant que la table ronde commencera par un examen des obligations de service universel dans les services postaux. Le problème, dans le secteur postal, est que les obligations de services servent souvent à justifier l'interdiction d'entrée. Le document soumis par les États-Unis cite un bon nombre d'obligations imposées à un opérateur postal, notamment l'obligation de desservir le pays tout entier à un tarif unique. Il existe de bonnes raisons de maintenir cette obligation. Comme le fait valoir le document de référence, si un opérateur de services postaux réduisait ses services pour ne couvrir que 99 pour cent des destinations, l'incertitude des clients quant aux destinations non desservies pourrait les conduire à rechercher d'autres moyens d'atteindre les destinations desservies. Le fait que le prix du timbre est peu élevé et que les coûts de l'obtention d'informations sur les destinations desservies peuvent être relativement élevés pourrait entraîner une perte considérable de demande due à l'incertitude au sujet des destinations desservies. Le service universel a l'avantage de supprimer l'incertitude de sorte que les ventes augmentent. En résumé, la confiance dans l'universalité du service peut accroître les ventes, et il faut en tenir compte lorsqu'on évalue les coûts de fourniture d'un service universel. Le problème est alors de savoir s'il est possible de maintenir l'obligation de desservir l'ensemble du territoire tout en renforçant la concurrence.

Robert Cohen, de la Postal Rate Commission (PRC) des États-Unis, aborde la question de savoir si l'ouverture des services postaux à la concurrence créerait une « spirale descendante ». Si l'entrée est autorisée, le nouvel arrivant peut profiter du fait que l'opérateur en place dessert à la fois des zones rentables et des zones non rentables en attirant à lui les clients des zones les plus rentables. L'opérateur en place devra alors relever ses prix puisque ses possibilités de subventions croisées seront réduites, et cette augmentation de prix offrira au nouvel arrivant des possibilités supplémentaires d'écroulement. Ce processus de hausses de prix suivies d'un écroulement supplémentaire pourrait se répéter jusqu'à ce que l'opérateur en place ne puisse plus desservir les zones non rentables. Ce serait une « spirale descendante ». Cohen fait valoir que, dans la pratique, cela ne se produirait pas.

L'entrée de nouveaux opérateurs a été autorisée en Suède et en Nouvelle-Zélande, mais il ne s'est pas produit de spirale descendante. Le principal service postal de la Suède fonctionne cinq jours par semaine tandis que son concurrent, CityMail, n'assure le service qu'un jour sur trois. Ni en Suède ni en Nouvelle-Zélande l'opérateur postal en place n'est confronté à une grande concurrence.

L'économie d'une spirale descendante dépend du nombre d'articles distribués par habitant. Aux Etats-Unis, on compte 700 articles par habitant, en Finlande 600, en Europe du nord, au Canada et au Royaume-Uni environ 300, en Allemagne environ 250, et dans le sud de l'Europe environ 100 par habitant. Les coûts augmentent à mesure que le volume de courrier distribué diminue, lentement au début, mais lorsque le volume par habitant devient faible, une légère perte peut se traduire par des hausses de coûts notables. Cela laisse penser qu'il faudrait peut-être des politiques différentes pour les petits pays, par opposition aux grands pays.

Si les zones desservies sont à peu près aussi rentables les unes que les autres, la probabilité d'apparition d'une spirale descendante est faible. Aux Etats-Unis, Robert Cohen indique que les 10 pour cent de zones les plus rentables génèrent 50 pour cent des bénéfices, tandis que les 10 pour cent de zones les moins rentables sont à l'origine de 50 pour cent des pertes. Dans les zones restantes, les résultats sont à peu près équilibrés.

Dans le cas de base, imaginons que le nouvel entrant ait une efficacité égale à celle d'un service postal. Les décisions concernant le partage du travail sont fondées sur le fournisseur qui coûte le moins cher, de sorte que le volume de courrier qui peut être cédé à un « écrémeur » pourrait être d'environ 21 pour cent de l'ensemble du courrier aux Etats-Unis, en 2002. Ce résultat repose sur une comparaison de coûts entre le secteur privé et le secteur public. Dans le pire des cas, 44 pour cent des zones desservies peuvent être écrémées, ce qui oblige à relever les prix de 25 pour cent.

Si un nouvel arrivant est plus efficace que le service postal, l'écrémage sera plus grand. Au volume le plus bas, 36 milliards d'articles distribués sur 200 milliards, à un niveau d'efficacité de 60 pour cent, nécessiteraient une hausse de prix de 2 pour cent. Si le nouvel arrivant a des coûts égaux à 20 pour cent de ceux de l'opérateur en place, 122 milliards d'articles lui seront transférés, avec une hausse de prix d'environ 78 pour cent pour l'opérateur en place, mais le service postal existant n'entrera pas dans une spirale descendante. Même après écrémage, par conséquent, Cohen pense que les hausses de prix seront modérées et qu'il ne se produira pas de spirale descendante. Le pire des cas serait celui où il y aurait un timbre à 66 cents contre un timbre à 34 cents. Cohen prévoit que la plupart des pays développés ne connaîtront pas de spirale descendante. Ces résultats dépendent davantage du volume contestable existant que de l'efficacité.

David Stubbs, de la Commission européenne, DG Marché intérieur, parle des services postaux européens. Il importe de noter, au sujet du marché postal de l'Union européenne, que les pays sont très divers. Un modèle d'entrée sur le marché du service universel est donc forcément sensible à ces différences. Le modèle comportera de nombreuses hypothèses fixes concernant le service postal. Le modèle qui vient d'être examiné a des limites car les hypothèses qui conviennent pour l'analyse des Etats-Unis sont probablement différentes de celles qui sont utilisées dans les Etats membres actuels et futurs de l'Union européenne. Il y a des services très rentables et d'autres qui ne le sont pas. Il y a des services postaux où le nombre de lettres par habitant est d'environ 50 et d'autres où il est d'environ 450. Il y a des régions plates et des régions montagneuses, ainsi que des zones à forte densité de population et des zones à faible densité. Les services postaux ne sont donc pas toujours comparables.

Afin de tenir compte de cette diversité, La Commission européenne a établi un modèle régional qui repose sur l'idée d'un service universel minimum harmonisé. L'Union européenne s'achemine vers l'ouverture progressive, abaissant la limite de poids à 50 grammes en 2006. Il a été créé des autorités

nationales chargées de la réglementation qui assurent le contrôle des prix et surveillent l'entrée sur le marché.

La subsidiarité des Etats membres a permis aux services postaux d'évoluer en fonction des conditions locales. Un tarif national uniforme a été adopté dans tous les Etats membres, même si la réglementation n'exige pas de tarif minimum.

Observations générales

Un délégué des **Pays-Bas** demande à M. Stubbs si une libéralisation complète en Europe serait possible sans toucher les services commerciaux. M. **Stubbs** répond qu'il n'est pas simple de répondre à cette question de façon générale ou sans informations actuelles. Dans certains Etats membres, les marchés pourraient être ouverts avant 2009.

Le **Président** indique que l'Italie a l'expérience des problèmes de concurrence, avec la pratique de repostage, qui consiste à envoyer des factures par courrier électronique à un autre pays, qui le renvoie à l'Italie. Cette pratique est interdite par les codes syndicaux des services postaux. Cependant, du point de vue de la concurrence, elle devrait être autorisée et encouragée tant que le service de distribution est remboursé de ses frais de transport et de distribution. Interdire le repostage n'a donc peut-être pas grand sens. Autoriser cette pratique pourrait aider à ouvrir les marchés et à intensifier la concurrence.

M. **Stubbs** dit que la Commission européenne envisage de réaliser une étude sur les services universels mais il ne souhaite pas faire de déclaration plus générale.

Un délégué de l'**Australie** demande pourquoi on ne peut pas relever les prix pour les services non rentables et les baisser pour les services rentables. Dans les zones reculées, on pourrait faire payer la distribution du courrier, par exemple.

M. **Cohen** déclare que l'argument relatif à la spirale descendante dépend du tarif uniforme. Sans tarif uniforme, les prix pourraient refléter les coûts. Cependant, les tarifs sont généralement uniformes. Les tarifs des envois en nombre varient selon qu'il s'agit d'une région à coût élevé ou à coût peu élevé, mais cela ne s'est pas encore produit. Si les prix étaient différents, il y aurait un système beaucoup plus efficient du point de vue économique.

Un délégué des **Etats-Unis** demande dans quelle mesure la réussite de la libéralisation dépend des flexibilités données à l'opérateur en place. Dans bon nombre des pays qui ont procédé à une libéralisation, les services postaux ont été autorisés à étendre leurs services aux activités bancaires, par exemple. Aux Etats-Unis, par contre, le service postal n'est peut-être pas autorisé à diversifier ses activités. Dans quelle mesure faudrait-il la liberté à l'opérateur en place d'accroître sa capacité de fournir des services universels ?

M. **Cohen** déclare qu'il ne croit pas qu'une subvention croisée des banques à la poste soit nécessaire, même s'il existe effectivement des banques avec les services postaux libéralisés. City Mail a réussi à attirer 30 pour cent du courrier sur les marchés desservis mais n'a perdu que 5 pour cent dans le partage avec l'opérateur en place. En Nouvelle-Zélande, les tarifs sont libres, mais il n'est pas nécessaire de diversifier les activités pour soutenir les obligations de service universel.

M. **Stubbs** fait observer que la flexibilité sert à créer des entreprises mondiales et est bénéfique mais qu'elle n'est pas nécessaire pour assurer une obligation de service universel. Les services postaux s'inquiètent maintenant au premier chef de la substitution électronique. Il faut examiner les avantages que procure le statut d'opérateur en place. Ces avantages sont peut-être déjà si importants que la concurrence a du mal à se développer.

M. **Cohen** indique que, du fait de la libéralisation du marché en amont, le secteur privé joue maintenant un grand rôle dans la distribution du courrier au Etats-Unis, avec 25 pour cent du marché en amont pour le service postal. Dans un sens, le marché des Etats-Unis est maintenant le plus libéralisé dans le monde, même si la Poste a encore un monopole pour la distribution et des prix entièrement réglementés. Cette évolution a pris beaucoup de temps puisque : les Etats-Unis ont commencé de libéraliser leur marché en 1976.

Préoccupations générales au sujet des obligations de services non commerciaux

Le **Président** remercie tous les pays qui ont soumis un rapport car ces rapports illustrent les différences de traitement des obligations de services non commerciaux. Il précise qu'il faut commencer par définir les obligations de services non commerciaux. C'est absolument essentiel pour les résultats du point de vue de la concurrence. Par exemple, si la définition est fondée sur les inputs (type de connexion téléphonique) et non sur les outputs (fourniture de téléphonie vocale), les choix technologiques sont limités, ce qui fait supporter un coût trop élevé au système. Dans certains cas, une définition trop restrictive des obligations de service universel peut limiter le nombre de fournisseurs possibles, ce qui réduit fortement la concurrence pour le marché.

Définitions

Le **Président** note que la Norvège a mis en place des obligations de service universel dans le transport régional afin de desservir les aéroports des régions reculées qui ont des pistes d'atterrissage très courtes. Les offres pour ces services ont été organisées en déterminant, au cours du processus d'appel d'offres, les caractéristiques des avions à utiliser pour certains aéroports. Les caractéristiques ont effectivement limité les soumissions à une compagnie aérienne pour un certain nombre de lignes.

Un délégué de la **Norvège** répond que les politiques des années 70 visaient à trouver des moyens de maintenir des communautés locales dans les zones reculées. Les préoccupations portaient principalement sur les besoins des communautés locales et non sur le coût de leur desserte. C'est ainsi que sont nées, dans les années 70, les obligations de service de transport. A l'origine, il y avait une seule compagnie aérienne, Wideroe, qui est maintenant un opérateur du groupe SAS. Aujourd'hui, les droits et obligations sont distribués par appel d'offres pour 10 régions. Le Ministère des transports fixe les tarifs, le nombre de places et la fréquence. Ces normes sont fondées sur les services qui existaient auparavant dans une région donnée. L'opérateur qui offre la plus faible subvention pour une ligne obtient le droit de desservir cette région. Si un opérateur annonçait qu'il offre le service aux conditions du marché, la ligne serait sans doute ouverte à la concurrence. Le premier appel d'offres a été lancé en 1996 pour la période 1997-2000 et s'est traduit par une diminution des subventions de 20-25 pour cent. Cependant, il est aussi devenu évident qu'il n'y avait pas beaucoup de concurrence pour l'opérateur en place, de sorte que lors de la série d'adjudications suivantes, les soumissions pour des subventions ont augmenté notablement. Le ministère a réorganisé les zones à desservir et a supprimé l'obligation d'avoir une cabine pressurisée de 30 places sur 25-30 pour cent des lignes où cela était justifié financièrement. Le ministère envisage de supprimer l'obligation d'avoir une cabine pressurisée de 30 places sur toutes les lignes. Cela serait un moyen de renforcer la concurrence. Mais cette solution est aussi politiquement sujette à controverse et doit être soumise à l'examen parlementaire. Un autre moyen d'intensifier la concurrence consisterait à porter la durée du contrat à plus de trois ans. L'article 4 du Règlement du Conseil CE 2408/92 limite la durée du contrat à trois ans. Une durée aussi courte ne constitue guère une incitation pour les nouveaux opérateurs s'il leur faut réaliser des investissements importants dans de nouveaux avions et installer des bureaux dans les aéroports. Le potentiel pour les nouveaux arrivants est donc inutilement réduit car la norme de trois ans fait obstacle à l'entrée. Dans le transport maritime industriel, les contrats sont souvent de dix ans ou plus. Il vaudrait la peine, dans l'UE et l'EEE, de réfléchir à l'idée de modifier la limite de trois ans imposée pour les contrats.

Le **Président** note que les Etats-Unis ont établi un document très approfondi donnant une vue d'ensemble, suivie d'une description très détaillée, des obligations de services non commerciaux dans les secteurs de l'énergie, de la poste et des télécommunications. La question du financement des obligations de services non commerciaux est abordée de façon générale dans les premières pages du document des Etats-Unis. En particulier, le rapport cherche à déterminer comment le choix d'une source de financement appropriée influe sur l'efficacité de la production et de la consommation. Le Président demande à la délégation des Etats-Unis de fournir des précisions sur ces questions, en illustrant tout d'abord les différents degrés d'efficacité correspondant aux différentes sources de financement. Le Président note qu'il serait intéressant de mieux comprendre si les arguments fondés sur les efficacités allocative et productive ont des chances de constituer des arguments valables dans un débat politique.

Un délégué des **Etats-Unis** indique qu'il est difficile de dire si les efficacités allocative et productive seraient le critère le plus pertinent pour modifier les règles. Dans le passé, il y a eu des changements en raison de grèves paralysant le service postal. Il n'y a pas d'urgence politique comparable pour le moment. La Commission du Président en fonction ces 6-8 derniers mois a mené une enquête auprès des consommateurs, qui se sont généralement déclarés satisfaits des services offerts. Jusqu'à présent, les tentatives de libéralisation n'ont pas fait l'objet d'un consensus, en dépit d'une recommandation de la Commission.

Le **Président** fait observer qu'il est très difficile de réduire les obligations de services non commerciaux. Une fois la décision prise de mettre en place une obligation, il est très difficile de la supprimer. Le rapport de la Commission européenne est important du point de vue des définitions et des descriptions fort intéressantes qu'il contient sur la mesure et les limites des possibilités d'intervention de la CE. Le rapport énumère les obligations de services non commerciaux telles qu'elles s'appliquent aux principaux services d'utilité publique (télécommunications, électricité, transports, gaz et poste). L'aspect intéressant du système européen est le fait que la CE ne donne pas d'indication sur la meilleure façon de financer une obligation de services non commerciaux (la décision appartient aux Etats membres), excepté que le financement doit être neutre du point de vue de la concurrence. La Commission ne dit pas non plus si certaines obligations de services non commerciaux, comme les services de renseignements téléphoniques, doivent être fournis par un seul opérateur ou par tous les opérateurs. Enfin, la mise en place d'une obligation de services non commerciaux est autorisée, dans les transports par exemple, quel que soit le degré de concurrence intermodale, de sorte qu'il n'y a pas d'analyse complète du marché pour déterminer la nécessité d'une obligation de services non commerciaux. Cependant, la Commission signale dans son rapport que certaines évolutions importantes sont en cours. La Commission pourrait-elle nous informer de ces faits nouveaux ?

La **Commission européenne** précise que les services peuvent être fournis par plusieurs opérateurs à condition que l'ensemble du territoire national bénéficie d'un service universel. Toutes les questions posées doivent être examinées secteur par secteur. Il y a évidemment différentes possibilités de financement et d'aide de l'Etat. Une compensation est autorisée pour les coûts nets supplémentaires découlant de la charge de service universel. C'est une illustration du principe général de « non-surcompensation ». S'il y a différents fournisseurs sur le marché, et que certains seulement ont une obligation de service universel, leurs concurrents peuvent avoir à leur verser des compensations afin d'égaliser cette contribution.

Des évolutions majeures sont en cours. Dans les télécommunications, actuellement, la Commission européenne a un système nouveau et complet comprenant un fonds pour le service universel et la possibilité d'aide des Etats. La Commission européenne est en train de réduire le domaine limité de la poste. Dans les transports, la réglementation date de 1969. Nous proposons une modification visant à établir une procédure d'appel d'offres avec des droits exclusifs pour cinq ans. Dans le secteur de

l'électricité, la surcompensation n'est pas autorisée, mais une certaine compensation, si elle remplit des conditions très strictes, n'est pas même considérée comme une aide de l'Etat.

Le **Président** note que le document sur la tarification de l'accès comporte un chapitre traitant du concept de coûts. Les responsables gouvernementaux parlent souvent des coûts comme s'ils étaient faciles à mesurer. Il n'en est rien, ce qui ne veut pas dire qu'il soit impossible de les mesurer. Cependant, la difficulté d'évaluation des coûts vaut tout autant pour les obligations de service universel que pour les autres domaines. On note une nette asymétrie de l'information entre l'entreprise et les décideurs potentiels au sujet des coûts. L'Australie examine actuellement avec attention l'obligation de services collectifs qui est définie comme l'obligation faite à une entreprise publique d'assurer des activités qu'elles n'entreprendraient peut-être pas autrement et que beaucoup d'autres entreprises n'entreprendraient qu'à des prix plus élevés. Le Président déclare qu'à son avis, ce n'est pas la bonne façon de procéder. Cependant, la question est de savoir comment mettre en œuvre ce critère. Comment connaître le prix pratiqué par un concurrent sur le marché pour une activité donnée sans un processus d'appel d'offres ? Si l'on revient à un système d'appel d'offres, comment assurer un nombre de participants suffisant ? A titre d'exemple, le Président demande à l'Australie de donner des précisions sur la façon dont le paiement est décidé pour la State Transit Authority.

Un délégué de l'**Australie** répond que le cadre des politiques en matière d'obligations de services non commerciaux, ou obligations de services collectifs, est régi par un accord de 1995 sur la politique nationale de la concurrence. En vertu de ces principes, les obligations de services collectifs doivent être transparentes, chiffrées directement et entièrement, et financées sur les budgets des administrations publiques. Les obligations de services collectifs ont certains éléments en commun. Une obligation de services collectifs est fondée sur une directive gouvernementale donnée à une entreprise commerciale, dans le cas où dans les mêmes conditions de service, le même service n'aurait pas été fourni à des fins purement commerciales, et une obligation de services collectifs doit avoir un avantage social déterminé. Selon les arrangements passés, les juridictions n'ont aucune obligation d'entreprendre un processus concurrentiel. Les systèmes d'appel d'offres peuvent aider à résoudre le problème de l'estimation des coûts et à choisir le fournisseur. Les obligations de services collectifs sont généralement attribuées aux fournisseurs en place. L'autorité chargée des transports en Nouvelles-Galles-du-sud, par exemple, a des difficultés à trouver d'autres fournisseurs. Cela ne vaut pas forcément pour les services de car ou de chemins de fer. Nous avons utilisé la méthode des coûts évitables (coûts et recettes supplémentaires qu'entraîne pour une entreprise l'obligation de service collectif), mais certains organismes utilisent la méthode du manque à gagner de recettes qui, nous en convenons, n'est pas idéale. Il est extrêmement important de réexaminer les arrangements en matière d'obligations de services collectifs que nous avons adoptés. C'est l'une des caractéristiques de notre système. Nous avons un organisme indépendant, le National Competition Council, qui établit des rapports annuels sur les politiques nationales de la concurrence en générale et sur les obligations de services collectifs en particulier.

Le **Président** note que le Portugal, dans le document qu'il a soumis, se réfère à la loi sur l'aliénation de la propriété publique. Il demande à la délégation portugaise d'expliquer en quoi cette loi influe sur la fourniture de services non commerciaux par de nouveaux arrivants et en quoi elle affecte le mécanisme d'appel d'offres et le financement des obligations de services non commerciaux.

Un délégué du **Portugal** répond que les préoccupations relatives aux obligations de service public n'ont pas été négligées lors de la privatisation. Cependant, les idéaux ont été modifiés de façon pragmatique compte tenu des changements légaux liés à la réforme. Les obligations de service public pour les postes et les télécommunications ont été attribuées pour des périodes de 25-30 ans. Or, avec la libéralisation, ce qu'il est intéressant de savoir c'est comment l'Etat va-t-il répondre aux revendications des entreprises nouvellement privatisées qui prétendent offrir des services publics. Le gouvernement pourrait fort bien envisager de lancer un appel d'offres pour un service à un prix donné. L'objectif est d'abandonner

l'idée selon laquelle les rentes de monopole sont justifiées parce qu'elles permettent le maintien de l'obligation de service public. La loi sur l'aliénation de la propriété publique mentionne la possibilité de vendre l'infrastructure de télécommunications à l'opérateur en place. Jusqu'en 2002, l'opérateur de télécommunications s'est vu confier la gestion de l'infrastructure. A la fin du dernier exercice budgétaire, l'infrastructure a été vendue à l'opérateur en place pour des raisons budgétaires. A l'heure actuelle, la fourniture de services par un nouvel entrant n'est pas un problème car l'opérateur a depuis longtemps cette obligation. La loi autorise effectivement l'adjudication par appel d'offres d'obligations de services non commerciaux.

Le **Président** demande des précisions sur la question de savoir si l'infrastructure de télécommunications était initialement propriété de l'Etat et gérée par la concession.

Un délégué du **Portugal** répond que, jusqu'à l'an dernier, Portugal Telecom était un concessionnaire. En raison de pressions budgétaires, l'infrastructure a été cédée à l'opérateur en place. Ce changement ne favorisera certainement pas l'entrée future sur le marché.

Discussion sectorielle -- Transports

Le **Président** note que bon nombre des documents soumis font état du rôle anticoncurrentiel que peuvent jouer les obligations de services non commerciaux. La contribution du Japon est très importante à cet égard car elle mentionne des exemptions à la loi sur la concurrence pour la fourniture de services non commerciaux. Le rapport japonais indique que, afin d'assurer un service de transport régulier pour les régions défavorisées au Japon, les entreprises sont autorisées à former une entente. Le Président se demande si ces exemptions à la loi sur la concurrence sont vraiment nécessaires. Ne vaudrait-il pas mieux prévoir des droits spéciaux et exclusifs et les attribuer aux enchères afin de réduire au minimum le montant des subventions requises ? Le Président demande des explications supplémentaires sur la finalité de ces ententes.

Un délégué du **Japon** explique qu'il existe des systèmes juridiques autorisant des ententes exemptées dans les services de transport par autocar, par bateau et par avion au Japon afin d'assurer des services qui sont nécessaires et indispensables pour répondre aux droits des habitants dans des zones où la population diminue et où la demande baisse. Ces ententes ne sont autorisées que lorsque le ministère compétent les approuve après avoir consulté la Fair Trade Commission. De cette manière, tant le responsable de la réglementation que l'autorité chargée de la concurrence vérifient la nécessité de ces ententes cas par cas. Toute utilisation abusive ou frauduleuse du système d'exemption est donc impossible. Actuellement, il existe une seule entente pour ce genre de services et il s'agit d'un service d'autocars dans la préfecture d'Okinawa, une île japonaise, qui bénéficie d'une exemption de la loi anti-monopole, c'est-à-dire la loi japonaise sur la concurrence. L'effet négatif de ces ententes sur la concurrence est donc très limité. Le prix des services est réglementé pour les services d'autocars par le ministère compétent. Le prix est plafonné. Les entreprises peuvent fixer des prix inférieurs au plafond si tel est leur choix.

Le **Président** relève que bon nombre des rapports soumis qui traitent des chemins de fer montrent qu'il est souvent spécifié des obligations de services non commerciaux concernant le mode de fourniture du services, par exemple par chemin de fer. Il n'y a pas beaucoup de cas où ces subventions sont offertes quel que soit le moyen de transport utilisé. Dans bien des cas, le transport par autocar se substitue facilement au rail et permet d'offrir des services fréquents et réguliers. Il pourrait se substituer comme service aux consommateurs. Dans les transports, en particulier, ces subventions et obligations sont imposées sur l'input, quels que soient les substituts qui puissent exister. La République tchèque, par exemple, fixe les subventions aux chemins de fer sans tenir compte des autres services. Le Président demande aux pays qui n'auraient pas spécifié l'input pour les transports d'examiner ce point. Aucun délégué ne se manifeste.

Discussion sectorielle -- Télécommunications

Le **Président** soulève la question de la norme de preuve utilisée pour estimer les pertes encourues par l'ancien détenteur de monopole du fait de l'obligation de services non commerciaux dans le cas où le marché s'ouvre à la concurrence. Ce point est particulièrement important dans les télécommunications. Dans le document de référence, il est question de Deutsche Telekom, le fournisseur en place de services de téléphone filaire en Allemagne. Si Deutsche Telekom déclare qu'un service n'est pas rentable, ce service est alors mis aux enchères afin de voir s'il peut être fourni à moindre coût par d'autres opérateurs. Deutsche Telekom n'a jamais déclaré qu'un service était non rentable, ce qui peut donner une idée du degré de non-rentabilité de ces services. Il est à noter aussi que lorsque l'opérateur en place peut perdre du pouvoir de marché lors de la mise aux enchères des services, ils peuvent être réticents à demander un paiement. On observe un résultat analogue, même si le processus n'est pas le même, avec British Telecom (BT). OFTEL a estimé que les avantages, en termes de réputation, par exemple, découlant des obligations de services non commerciaux dépassent largement les coûts, avec 100-150 millions de livres de recettes pour 45-65 millions de livres de coûts. Tout cela signifie que ces obligations peuvent être nécessaires mais qu'elles n'ont pas besoin d'être financées par les concurrents. Des pays différents peuvent trouver des résultats différents avec ce type d'analyse. L'Italie dispose de fonds pour rembourser Telecom Italia des frais liés à ces obligations. En Italie, une étude a été réalisée afin de déterminer si Telecom Italia aurait avantage à assurer une obligation de services non commerciaux. L'étude a mené à la conclusion que la fourniture de ces services était coûteuse. Le Danemark, dans les rapports qu'il a soumis, indique que l'opérateur de télécommunications en place doit assurer une obligation de services non commerciaux mais n'est pas remboursé. Pourquoi ? Pourquoi Telekom DK ne demande-t-il pas de financement ?

Un délégué du **Danemark** répond que dans son pays, comme en Allemagne, la réglementation est telle qu'il est possible pour le fournisseur de services de recevoir des subventions s'il est en mesure d'apporter la preuve de son déficit réel aux responsables de la réglementation des télécommunications. Contrairement à l'Allemagne, comme le Danemark est un petit pays, l'opérateur de télécommunications ne limiterait pas sa demande d'aide à des régions géographiques mais plutôt à des services particuliers, comme les communications d'urgence. Jusqu'à présent, l'opérateur de télécommunications n'a pas demandé de subventions au titre de déficits potentiels, peut-être en raison d'économies de gamme. S'il était en mesure d'apporter la preuve d'un déficit, comme en Allemagne, le service serait mis aux enchères. Mais, d'une certaine façon, il arrive à maintenir le système et à le faire fonctionner.

Le **Président** fait observer que ces exemples sont importants car ils montrent comment la réglementation peut réussir à réduire le financement d'un opérateur en place par les concurrents et augmenter le nombre de concurrents. Bien entendu, la question des coûts/avantages des obligations de services non commerciaux dans les télécommunications, par exemple, dépend pour une grande part de la densité de la population dans le pays. Par exemple, la situation en Italie, un pays à forte densité de population, peut être tout à fait différente de celle du Canada, un pays à population très clairsemée. Dans les pays qui n'ont pas une forte densité de population, la différence entre le financement des clients ruraux et celui des clients urbains peut être très grande. Le Canada a un mécanisme très perfectionné de financement pour ses obligations de services non commerciaux. En particulier, n'importe quelle entreprise desservant des zones à coût élevé aurait droit à une subvention, et pas seulement l'opérateur en place. C'est une bonne solution lorsqu'une zone nouvelle n'est pas desservie et a besoin de l'être. Cependant, lorsqu'il existe déjà des lignes dans ces zones, comment fonctionne le système de subventions ? Un nouvel arrivant peut-il prendre le service de la zone desservie par un opérateur en place ? Comment cela marcherait-il étant donné qu'une grande partie des coûts est constituée de coûts fixes ?

Un délégué du **Canada** répond que le service universel se définit comme un service de haute qualité, à prix abordable, accessible à toutes les régions du pays. C'est depuis longtemps l'un des principaux objectifs de la politique canadienne des télécommunications. Le Conseil de la radiodiffusion et

des télécommunications canadiennes, ou CRTC, a mise en œuvre un grand nombre de décisions, au cours de la décennie passée, régies par le cadre du service universel afin de tenir compte de l'ouverture des marchés à la concurrence. Aujourd'hui, il s'agit d'un régime centré de façon beaucoup plus étroite sur les régions à coût élevé, comme le nord et les zones rurales du Canada, et la contribution totale requise a été réduite par des mesures comme la restructuration des tarifs. Les tarifs ont été ajustés afin de refléter plus exactement les coûts réels des services. Dans les régions à coûts élevés, cela signifie que les tarifs des services locaux sont plus élevés qu'ils ne l'étaient auparavant, encore que, pour de nombreux clients, la baisse des tarifs des communications à longue distance, déclenchée par la concurrence, compense cette hausse. Les tarifs reflétant mieux les coûts, la nécessité d'apporter des subventions diminue. Le régime est technologiquement neutre et entièrement transférable, ce qui veut dire que tout fournisseur qui remplit les conditions du service de base dans les zones à coût élevé a droit à une subvention. En 2001, le CRTC a approuvé les coûts marginaux servant à calculer les subventions pour la desserte des régions à coûts élevés. Il a notamment adopté une méthode uniforme d'identification des zones à coûts élevés dans les territoires des principales entreprises de services locaux titulaires et un ensemble plus cohérent de méthodes d'évaluation des coûts pour déterminer le coût, pour les entreprises de services locaux titulaires, du service local de base résidentiel. Les régions à coûts élevés se divisent en trois catégories distinctes pour lesquelles les coûts et les subventions correspondantes sont déterminés : premièrement, les collectivités comptant moins de 1 500 lignes ; deuxièmement, les collectivités comptant entre 1 500 et 8000 lignes et ayant une longueur de boucle moyenne de plus de 4 000 mètres ; et troisièmement, les collectivités reculées qui ne sont pas accessibles par la route toute l'année.

Le **Président** note que, comme le Canada, le Taipei chinois a un système d'appel d'offres pour les obligations de services non commerciaux dans les télécommunications. Un nouvel arrivant peut-il desservir une partie seulement du pays ? Le système fonctionne-t-il bien en ce sens que les nouveaux entrants deviennent des fournisseurs de services non commerciaux ?

Un délégué du **Taipei chinois** répond qu'en 2001, le Ministère des transports et des communications a publié une réglementation, sur le service universel de télécommunications, qui est entrée en vigueur l'an dernier. Conformément à cette réglementation, les zones opérationnelles sont divisées en deux catégories : les zones opérationnelles générales, dans lesquelles un nouvel entrant peut concurrencer l'entreprise en place dans des conditions d'activité normales, et une zone économique où un nouvel arrivant et l'entreprise en place soumettent des offres pour devenir le fournisseur de service universel. Le responsable de la réglementation a examiné les plans de mise en œuvre soumis par les nouveaux entrants et l'entreprise existante, puis il a décidé qui serait le fournisseur de service universel dans des zones non rentables spécifiques. Les zones non rentables se divisent en plusieurs unités. Il n'est donc pas nécessaire que les nouveaux entrants desservent le pays tout entier. Chaque année, les entreprises qui souhaitent fournir le service doivent soumettre un plan annuel de mise en œuvre du service universel au responsable de la réglementation. Il y a certaines zones non rentables qui sont desservies par de nouveaux entrants, mais la plupart sont toujours desservies par l'entreprise publique. Cette année, tous les opérateurs de téléphone fixe ont dû se partager le coût de la fourniture du service universel en 2002, ce qui signifie que la plupart des nouveaux entrants doivent payer des droits à l'opérateur en place par le biais du fonds de financement du service universel de télécommunications. La semaine dernière, le responsable de la réglementation a examiné les résultats de la mise en œuvre et a publié les montants dus par chaque opérateur. Nous n'avons pas de renseignements précis sur les sentiments des nouveaux entrants au sujet de la contribution qui leur est demandée. A supposer qu'ils estiment qu'il y a surcompensation, cela serait un signe important de réussite de la mise en œuvre de la réglementation relative aux télécommunications.

Le **Président** note que bon nombre de pays semblent prendre en considération uniquement le coût de l'obligation et non l'avantage qu'en tire l'opérateur titulaire en termes de meilleure réputation, d'image de marque etc. Le Président demande à l'Autriche (en tant que représentante de nombreuses autres délégations qui ont un système tout à fait similaire) d'expliquer sa pratique (qui consiste à partager le coût

de l'obligation de services non commerciaux avec les autres participants du marché) et d'indiquer si elle envisage de modifier la définition de l'obligation de services non commerciaux dans les télécommunications et son mode de financement ?

Un délégué de l'**Autriche** répond que, en vertu de la législation nationale, il est possible au fournisseur de service universel obligatoire de demander le remboursement des coûts liés à ces obligations s'ils représentent une charge excessive. Le financement est assuré par le biais d'un fonds pour le service universel. Tous les opérateurs de télécommunications doivent contribuer à ce fonds si leurs recettes s'élèvent au minimum à 5 millions d'euros. Leur contribution est calculée en fonction de leur part de marché. Les coûts sont évalués compte tenu des coûts et avantages de la fourniture du service obligatoire. En ce qui concerne les modifications, l'Autriche a adopté une nouvelle loi cet été afin de se conformer aux récentes réglementations de la CE, et de nouvelles modifications ne sont probablement pas prévues dans l'avenir proche.

Le **Président** note que la plupart des pays définissent les obligations de services non commerciaux sans tenir compte du fait que ces services peuvent être fournis par tous les participants du marché (par exemple, les renseignements téléphoniques ou l'accès aux numéros d'urgence ou les services de commutation pour les malentendants). Très souvent, l'opérateur en place est le fournisseur de services non commerciaux obligatoires en vertu de la loi, même si plusieurs opérateurs peuvent fournir ces services. La définition des obligations de services non commerciaux tient-elle compte de la possibilité d'avoir plusieurs fournisseurs ? Dans ce cas, il n'est pas besoin de financement, ou un financement partiel suffit. La Suisse fait état d'un système d'appel d'offres dans lequel l'hypothèse implicite est l'offre unique. A-t-on jamais cherché à savoir si tous les participants du marché fourniraient au moins certains des services non commerciaux ?

Un délégué de la **Suisse** répond qu'en 1998, un système a été mis en place pour les concessions de services non commerciaux dans les télécommunications, dans le cadre de la libéralisation de ce secteur. Une concession est attribuée à un seul opérateur par un système d'enchères périodiques. Cela ne veut pas dire que ces services ne peuvent pas être fournis par différents concurrents. Chaque opérateur peut offrir des services à des conditions commerciales. Cependant, seul l'adjudicataire de la concession est tenu de fournir les services pour le pays tout entier. On est sûr, ainsi, que les services sont fournis. On sait par expérience qu'il est difficile de trouver de nouveaux opérateurs qui fourniront le service sur l'ensemble du territoire suisse. En réalité, l'ancien fournisseur monopolistique est le seul opérateur à avoir posé sa candidature pour la concession de service universel pour la période 2003-2007. De ce fait, la loi a été modifiée récemment et elle autorise, dans l'avenir, les entreprises à soumissionner des concessions à l'échelon régional.

Le **Président** fait ensuite observer que, même si le Royaume-Uni n'a pas soumis de contribution nationale, il a une expérience récente de libéralisation des services de renseignements téléphoniques. En particulier, le Président demande des explications sur les raisons de la libéralisation et sur les résultats obtenus.

Un délégué du **Royaume-Uni** répond que la libéralisation du marché britannique des services de renseignements téléphoniques en est encore à ses tous débuts. Auparavant, ces services étaient assurés par l'opérateur de réseau, essentiellement BT, à l'aide de 192 bases nationales et 142 bases internationales. OFTEL et OFCOM, sous leur nouveau nom, se sont rendu compte qu'il y avait des doutes sur la qualité de leurs services. Ces services consistaient à fournir un numéro de téléphone, puis un second, mais ensuite les utilisateurs devaient recomposer le numéro pour formuler d'autres demandes. BT ne fournissait pas l'adresse ni aucune autre forme d'aide. Il a donc semblé exister d'autres possibilités du point de vue de la qualité du service. Les responsables de la réglementation ont annoncé qu'ils décidaient d'ouvrir à la région à la concurrence afin de voir s'il y avait un autre opérateur susceptible de fournir ces services. Un grand

nombre d'entreprises ont offert leurs services. Toutes devaient commencer avec un numéro à six chiffres au lieu des trois chiffres du passé. Tous les numéros à six chiffres commençaient par 118. Cependant, aucune n'a été autorisée à soumissionner pour le 118192, qui rappelait le système passé. Le passage de trois à six chiffres ouvrira, le moment venu, des codes supplémentaires pour d'autres usages. Il y a maintenant des dizaines de services de renseignements téléphoniques, tarifés à partir de 20p, alors qu'un appel normal coûte environ 50p. BT a choisi le numéro 118150, Cable and Wireless NTL a choisi le 118160, et un tout nouvel entrant a choisi le 118118, qui semble être l'un des numéros les plus populaires de par la publicité dont il fait l'objet. Un système de double accès a été mis en place de sorte que les consommateurs qui ne sont pas au courant du changement arrivent quand même à obtenir le service. Ce système fonctionne par rotation de sorte qu'un appel est réacheminé du 192 vers l'un des nouveaux services, à tour de rôle. Ce réacheminement sera, à terme, supprimé, l'organisme responsable de la réglementation des télécommunications décidant du meilleur moment pour le faire. Il est manifeste que bon nombre des opérateurs ont saisi l'occasion d'étendre leur offre au consommateur. Les associations de consommateurs du Royaume-Uni ont examiné les offres disponibles afin d'orienter les clients vers les services qui leur paraissent appropriés à différentes fins et avec des appels de différentes origines. Cela a élargi la gamme des options, surtout pour les automobilistes qui veulent souvent que leurs appels soient connectés au lieu d'avoir à composer un numéro tout en conduisant. En conclusion, il n'y a pas eu de pénurie d'offres pour assurer ce qui était au départ considéré comme une obligation de services non commerciaux. Au fil du temps, le marché évincera probablement certains des nouveaux opérateurs tandis que d'autres modifieront les services qu'ils offrent.

Le **Président** note que la facture vient du fournisseur de réseau du client. Cependant, le client n'est pas obligé d'utiliser le fournisseur de réseau comme opérateur.

Discussion sectorielle – Services postaux

Le **Président** se réfère à la soumission des Etats-Unis qui, plus particulièrement pour la Poste, examine de façon assez détaillée l'importance des obligations de services non commerciaux (voir pages 27 et 28 du rapport). La liste des obligations est très longue et prévoit que le service doit être étendu à tout le pays avec un délai de distribution de six jours et un grand nombre de tarifs préférentiels. Les tarifs préférentiels concernent souvent les imprimés. Le rapport indique que le degré de concurrence dans les services postaux a augmenté sensiblement ces dernières décennies, mais que les obligations de services non commerciaux restent plutôt stables. Ne pensez-vous pas que l'on pourrait revoir la question des obligations de services non commerciaux ? Il me semble que le progrès technique, avec la messagerie électronique et l'Internet, rend bon nombre de ces obligations obsolètes. Politiquement, cependant, personne n'est même disposé à envisager ce qui pourrait aboutir à une réduction (peu probable) des services.

Un délégué des **Etats-Unis** déclare que l'enquête de la Commission du Président ne semble pas indiquer un désir de changement chez les clients. En Alaska, par exemple, les consommateurs dépendent de l'U.S. Postal Service pour les lettres et les paquets. Le service envisage la possibilité de réduire le nombre de jours. Certains expéditeurs préfèrent certains jours, d'autres préfèrent d'autres jours. Réduire d'un jour pour certains clients serait difficile pour le moment. Si les hommes politiques commencent à avoir le sentiment qu'il faudrait placer l'U.S. Postal Service comme ligne directe dans le budget fédéral, ce serait peut-être aussi le moment de reconsidérer l'ensemble des obligations de services non commerciaux.

Le **Président** demande pourquoi certaines boîtes aux lettres devraient être un domaine réservé où personne ne peut déposer d'envois sauf la poste. Dans la plupart des autres pays, la boîte aux lettres n'est pas réservée à l'usage de la poste. Le Président fait observer que cela semble être un important élément de restriction du type de concurrence qui peut exister.

Un délégué des **Etats-Unis** note que la Commission du Président a examiné la possibilité d'ouvrir les boîtes. Une solution serait de faire payer l'accès à la boîte. Une autre consisterait à autoriser les utilisateurs à mettre une étiquette sur leur boîte pour indiquer s'ils en permettent l'utilisation par d'autres services de distribution comme FedEx ou UPS. Cela pourrait arriver dans l'avenir. Une autre question soulevée par les consommateurs est un problème de sécurité : il s'agit de déterminer qui a le droit de déposer des articles dans leur boîte. Depuis l'affaire de l'anthrax, d'aucuns craignent qu'il ne soit dangereux d'autoriser un accès trop général à leur boîte.

Le **Président** note que la nouvelle directive de l'UE réduit notablement le domaine qui peut être réservé aux opérateurs nationaux titulaires d'un monopole. Maintenant, le domaine réservé couvre les plis d'un poids maximal de 100 grammes et le prix est limité à trois fois le prix de la catégorie la plus rapide. A partir de 2006, le domaine réservé sera limité aux plis de 50 grammes et à 2.5 fois les tarifs susmentionnés. Cela signifie que les obligations de services non commerciaux sont liées à la distribution de courrier simple et non pas paquets de quelque sorte qu'ils soient. Le Président sollicite des observations sur la question de savoir si l'évolution des télécommunications et de l'Internet a déjà conduit à la création de services de substitution qui rendent obsolètes ces domaines réservés du service postal. Le Président demande aussi des observations sur l'importance de l'emploi dans les services postaux.

Un délégué de la **Commission européenne** fait observer que de nombreux opérateurs se sentent davantage menacés par la substitution technologique que par l'ouverture à la concurrence. Si l'on examine le marché suédois, par exemple, la Poste suédoise déclare que ses pertes en 2002 sont dues principalement à la substitution électronique. Dans certains Etats membres, la substitution électronique se développe davantage que dans d'autres. La Commission a récemment réalisé une étude de l'emploi dans les services postaux, qui fait état d'environ 5 millions d'emplois liés directement ou indirectement aux services postaux dans l'Union européenne. L'emploi ne paraît pas avoir souffert de la modernisation du secteur. La plupart des salariés sont des fonctionnaires qui ne peuvent pas être redéployés très facilement.

Discussion générale

Le **Président** donne la parole à ceux qui ont des observations et des commentaires généraux à formuler sur la question des obligations de services non commerciaux.

Un délégué des **Pays-Bas** pose des questions au sujet des services de renseignements téléphoniques au Royaume-Uni. Il existe une concurrence dans ces services, mais la question est de savoir dans quelle mesure British Telecom est obligée de communiquer ses informations au sujet de ses clients.

Un délégué du **Royaume-Uni** répond que la partie du contrat qui gouverne les opérateurs comprend l'accès à une base de données commune. Les opérateurs sont autorisés à ajouter à la base de données des informations supplémentaires dont ils disposent. Par exemple, ils peuvent chercher à ajouter des services à valeur ajoutée aux automobilistes, comme la livraison de fleurs dans le cadre des renseignements téléphoniques.

Conclusions du Président

Le **Président** conclut que la discussion a été intéressante et importante. Elle a montré comment une question qui n'est habituellement pas perçue comme une question antitrust peut en être une, du fait que l'entrée est restreinte pour la fourniture de services non commerciaux obligatoires. Indépendamment du fait que les services peuvent être non commerciaux, il y a des moyens de fournir un service qui sont plus neutres, du point de vue de la concurrence, que d'autres, comme celui qui consiste à autoriser plusieurs fournisseurs. Il existe aussi différents moyens de financer ces services, par exemple en faisant supporter le financement à un opérateur titulaire. L'expérience du Danemark et de l'Allemagne, qui font des appels

d'offres pour la fourniture de services non commerciaux, est un puissant moyen de limiter la possibilité de recevoir des fonds à partir de fausses allégations. Par ailleurs, au cours du débat sur la poste, il a été mentionné très peu d'expériences de libéralisation des services. Cependant, les études présentées ont révélé que les obligations de services non commerciaux sont compatibles avec un cadre concurrentiel. L'expérience de la Suède et de la Nouvelle-Zélande incite à l'optimisme pour le service postal.

La définition des obligations de services non commerciaux est étroitement liée au résultat qui peut être obtenu sur le plan concurrentiel. C'est le cas avec la Norvège, par exemple, du fait que les avions sont définis du point de vue de la taille et du type ainsi que de la durée du droit exclusif. Le rail et les autocars sont souvent des substituts, du moins jusqu'à un certain point, et ce serait donc une bonne idée d'établir un rapport entre le service non commercial et le transport assuré entre deux points. Il en va de même pour la téléphonie mobile par rapport à la téléphonie fixe. Le document sera légèrement révisé puis mis sous forme de document à diffusion générale. Le Président remercie le Secrétariat, les deux membres du groupe spécial, les délégués et les responsables de la réglementation qui accompagnent les délégués d'avoir mené cette table ronde de façon constructive.