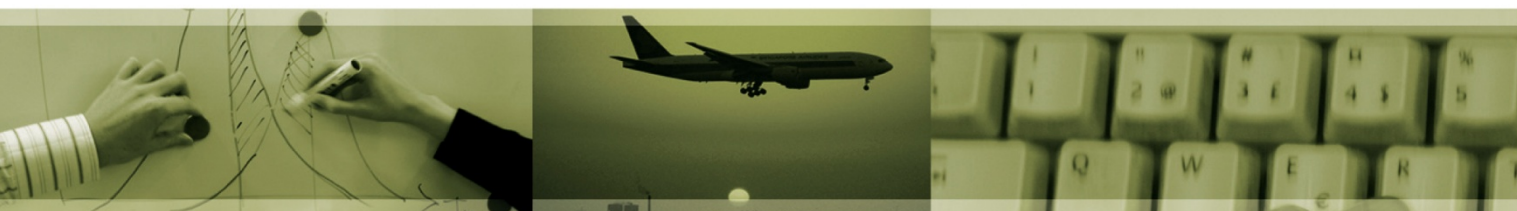

MAIN DEVELOPMENTS IN THE POSTAL SECTOR (2008-2010)

FINAL REPORT | 29 NOVEMBER, 2010

INFORMED DECISIONS



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PREFACE

Copenhagen Economics has been commissioned by DG Internal Market to study the main developments in the postal sector from 2008 to 2010. The main objective of the study is to increase the understanding of which main developments have occurred in the EU27, EEA and Swiss postal sectors since 2008, and how they affect the achievement of the European Union's own objectives.

The project has included significant data collection work. We have contacted all regulatory authorities, ministries and national postal operators in the 31 countries under consideration. To ensure data integrity, following the receipt of initial answers all respondents were invited to review the consolidated versions of country fiches. In addition, we have interviewed a large number of stakeholders, including competitor postal operators; express carriers; representatives of trade unions; mailers' associations including FEDMA and its members; international postal organisations including the UPU and the IPC; selected NRAs and NPOs, and have performed both online and face-to-face surveys to investigate the recipients' and mailers' attitudes towards the universal service obligation. Moreover, we have surveyed a large amount of publicly available sources, including all previous studies in the "Main Developments" series; the academic literature; EU and national case law repositories, and annual corporate reports.

We are grateful for the support we have received from all stakeholders and for constructive discussions with the project team at DG Internal Market.

Although 2010 marked the development of new postal laws in many Member States, their effects are not always reflected in the indicators presented here, as the main data collection took place during the first half year of 2010. Hence, in some cases new laws have been passed between the data collection and the completion of our report. We describe this development, but we have not requested NRAs, ministries and NPOs to update their indicators again.

The project team at Copenhagen Economics consisted of partner and project manager, Ph.D. Henrik Ballebye Okholm, economist Marcin Winiarczyk, economist Anna Möller and quality assurer, managing director, Ph.D. Claus Kastberg Nielsen. The team received great support from colleagues at Copenhagen Economics as well as research assistants from Kristoffer Bjærkefur, Andreas Bjerre-Nielsen, and Hanna Hedlund.

The study consists of two parts. This is Part A which contains the main text. The separately available Part B contains the consolidated country fiches.

Stockholm, 29 November, 2010

Partner, Ph.D., Henrik Ballebye Okholm

TERMS AND ABBREVIATIONS

B2B	Business-to-business
CEN	European Committee for Standardisation
CERP	European Committee for Postal Regulation
DG	Directorate General (of the European Commission)
EC	European Commission
EEA	European Economic Area
EU	European Union
FEDMA	Federation of European Direct and Interactive Marketing
NCA	National competition authority
NCPA	National consumer protection authority
NPO	National postal operator
NRA	National regulatory authority
QoS	Quality of service
SMEs	Small and medium enterprises
TAXUD	Directorate-General for Taxation and Customs Union (of the European Commission)
UPU	Universal Postal Union
US	Universal service
USO	Universal service obligation
USP	Universal service provider
VAT	Value added tax

COUNTRY ABBREVIATIONS

AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FI	Finland
FR	France
HU	Hungary
IS	Iceland
IT	Italy
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
SE	Sweden
UK	United Kingdom

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Chapter 1 | EXECUTIVE SUMMARY

The European Commission, DG Internal Market and Services, has commissioned Copenhagen Economics to provide a study on the main developments in the postal sectors of the EU27-Member States, Norway, Iceland, Luxembourg and Switzerland in the period from 2008 to 2010. The study is a follow-up on previous studies¹ covering the periods 2004-2006 and 2006-2008. These studies serve as important inputs for the European Commission's active market monitoring of the postal sector.

In this study, we provide a number of recommendations on how to improve the application of the postal *acquis* (i.e. the accumulated legislation, legal acts, and court decisions which constitute the body of European Union law). These recommendations are based on a detailed survey of a wide range of indicators, covering regulatory, economic, social, consumer and employment aspects, as well as quality of service and technological development. The main developments and our recommendations are described in this document, while the indicators are carefully documented in a separate document with country fiches for each of the 31 countries covered by the study.

1.1. THREE MAIN THEMES: USO, LABOUR MARKET, AND COMPETITION

The years from 2008 to 2010 have seen many changes in the postal sector. EU Member States have prepared for the implementation of the Third Postal Directive which implies, among other things, full market opening. Meanwhile, the long term market trends have continued: Volumes have fallen, particularly due to e-substitution and the financial crisis; employment at the national postal operators has fallen and competitors' market shares have remained almost unchanged.

We have identified three main themes in the postal sector developments which we find to be of particular importance:

The first theme is the universal service obligation (USO). Full market opening removes the traditional source of financing for the USO: The reserved area. However, in most countries the financing of the USO does not seem to pose a major challenge to date. Currently, only a few countries have found it necessary to compensate the universal service provider for the net costs of the USO. However, increased competition, declining mail volumes and removal of reserved areas may change this situation in the future. Therefore, to allow informed decisions about the future scope of USO, we recommend that all countries perform systematic studies of the costs and the benefits of various USO elements. This is important to avoid provision of costly USO services which consumers do not need. We have conducted a pilot study to examine consumers' need for a USO and their willingness to pay for different USO elements. Our study suggests that residential, but not business customers attach high value to maintaining a significant number of post offices. This may warrant a USO ensuring more post offices than the postal operator would find commercially attractive in a free market.

¹ WIK (2006), Ecorys (2008)

The second theme is the postal labour market. We foresee a continued decline in the number of postal workers. We conclude that technological development will cost more jobs at national postal operators (NPOs) than competition, because the level of competition only grows slowly while e-substitution is causing a significant decline in mail volumes and increased automation is implying significant reductions in the workforce. We find that competition may reduce wage levels if postal workers, before liberalisation, earn higher wages than workers with similar skills in comparable industries. We do not find evidence of postal wages falling below the wage level in comparable industries. However, an extensive use of self-employed mail deliverers may result in wages below the wage level in comparable sectors, since self-employed workers (having the job as a secondary source of income) are sometimes prepared to work for low wages.

We have identified several instances where sector-wide extensions of regulation of wages and employment standards have impeded competition, either because wages are set above the level in comparable industries or because provisions prevent competitors from using alternative business models (e.g. increased use of part-time or younger workers) to overcome the challenge of having less economies of scale than the NPO.

The third theme is competition. Our study has been conducted as the Member States are implementing the Third Postal Directive. The Postal Directive will end a long tradition of having a reserved area for certain postal services and will open all postal markets to competition by 31 December 2010 for most Member States, or by 31 December 2012 at the latest for the remaining 11 Member States. Although we observe that the formal implementation of the Postal Directive follows the specified timeline in most cases, we foresee that actual competition will only increase slowly and gradually. The postal market is difficult for new entrants due to declining mail volumes and large economies of scale and scope to the benefit of the incumbent. Regulators can play a key role in ensuring a level playing field so that real competition can develop. We point to a number of regulatory remedies on European level, including removal of VAT distortions (implementing VAT on all postal services) and on national level, including ensuring independence of the NRA and access to postal infrastructure that can ensure a more level playing field for competition.

1.2. OVERVIEW OF THE REPORT

Below, we summarise the main findings and recommendations in our report. The structure follows that of the report.

Mail market developments

In chapter 2, we provide an overview of the role of the postal sector – understood as commercial activities centred on the collection, sorting, transportation and delivery of mail and parcels – in the European economy; the situation of national postal operators; developments in price and affordability and quality of service. Our key findings are the following:

The role of the sector:

- The postal sector accounts for approximately 0.6 percent of GDP (€70.2 billion) and 0.75 percent of employment (1.6 million) in the countries covered by the study.
- The postal sector constitutes a larger share of GDP in countries with high income levels than in countries with lower income levels.

National postal operators (NPOs):

- The financial crisis has had significant impact on the NPOs. Revenues and volumes have declined in many segments of the mail market. The segments most affected are publications, unaddressed items and direct mail.
- Almost all NPOs are now limited liability companies or joint stock companies. However, in most cases, governments continue to hold a controlling stake in the NPOs, with the exception of Germany, Malta and the Netherlands. In 18 countries, the state controls 100 percent of the NPO's stock.
- Between 2008 and 2010, many NPOs have continued their strategy of mergers and acquisitions. Many of these were undertaken at international level, such as the merger of Post Danmark and Posten AB into Posten Norden.

Prices and affordability:

- In 2009, the 20g tariff letters were priced, after purchasing power parity (PPP)-adjustment, between €0.23 and €0.81 with an average of €0.50.
- It requires between 0.8 and 8.2 minutes of work time to pay for a 20g tariff letter. Despite significant differences across countries, affordability seems to be high everywhere.
- In the majority of the countries, wages have increased faster or at the same rate as the price for a 20g letter. This implies stable or increased affordability.

Quality of service:

- A number of universal service providers (USPs) continued to be challenged in meeting their legal obligations with respect to transit time standards for domestic and cross-border mail.

Regulatory developments

In chapter 3 we focus on regulatory developments, including the transposition of the Third Postal Directive, the role of the NRA, price control and accounting, and consumer protection measures.

The Third Postal Directive:

- Member States with a deadline on 31 December 2010 for the implementation of the Third Postal Directive appear to be taking the steps to ensure that the implementation of the Directive happens on time.
- In certain cases, however, transposition appears to go against the spirit of the Postal Directive to ensure a functioning internal market in the postal sector. Examples include

territorial coverage requirements (Belgium), and contributions to USO compensation funds (e.g. Spain).

Role of the National Regulatory Authority (NRA):

- We conclude that in many countries the question of NRA independence appears challenged.
- One country, Italy, has not established an independent NRA responsible for the postal sector.² Its functions are performed by the Italian Ministry of Economic Development.
- In two countries, Denmark and Liechtenstein, the NRAs do not have coercive power if the USP fails to meet quality standards.
- In many countries, the NRA decisions must go through a process of consultation with the government or because NRA decisions can be overruled by the government.
- Finally, some NRAs may have too limited staffing and budget, especially in the case of the new Member States (EU12) as compared to the old Member States (EU15), which may compromise the scale or scope of NRA activities or compliance e.g. with the market monitoring (data collection) and reporting obligations in the Directive.
- On the other hand, several countries (e.g. UK, France, Germany, Sweden, Norway and Finland) with strong institutional structures and a tradition of regulation have a strong and independent NRA.
- We recommend that all countries prioritise a strong and independent NRA, not least in light of the current process of updating national postal laws to transpose the Third Postal Directive – as well to comply with the ensuing duties regarding the monitoring of developments in the sector.

Price control and accounting:

- We recommend that NRAs remedy their oversights in the area of individually negotiated agreements and special tariffs.
- A key concern is the fact that the NRA has not approved the cost accounting systems used by the USP in as many as 16 countries³. This may raise questions about the ability of NRAs to control costs in practice.
- We also recommend that the NRAs improve transparency. Four countries do not have an independent review of USP accounts, whereas 23 countries do not publish the cost allocation system used by the USP.

Consumer protection:

- The regulation on consumer protection and remedies has improved since the last study of this kind⁴. All countries now ensure consumer protection.

² Spain has established an NRA by law (Royal decree 1920/2009, implementing law 23/2007 from October, and since July 2010 the regulator is formally established).

³ The countries are: Austria, Bulgaria, Cyprus, Denmark, Estonia, Finland, Germany, Greece, Latvia, Luxembourg, Netherlands, Poland, Portugal, Romania, Sweden and Iceland. No information is available for Liechtenstein.

⁴ WIK (2009).

- Furthermore, a significant number of countries already extend consumer protection to include users of *all* mail services. This is consistent with an extension of the requirements in the Third Postal Directive.

Development of competition

In chapter 4, we examine the development of competition in the postal sector. Our main conclusion is that competition in the postal sector remains challenged:

- National postal operators maintain dominance in a number of market segments, a number of important entry barriers are outstanding, and a number of competition issues are reported.
- Despite the fact that full legal market opening has been achieved in Estonia, Germany, the Netherlands, Sweden, and the United Kingdom, actual competition in these countries is still low or undisclosed.
- Competition tends to be stronger outside the letter post segment, especially in express and parcels, and to a lesser extent in cross-border mail, direct mail, and publications.
- Interviews with competitor postal operators and trade unions revealed significant entry barriers. These must be overcome before the market can be considered truly open. Important barriers include the special VAT treatment of “public postal operators” (see chapter 7); strict licensing requirements; lack of clarity regarding the latest EU case law; the presence of a reserved area where this is still the case; employment regulations (see chapter 6); regulation regarding the financing of the USO (see chapter 5) and regulation of access to the postal infrastructure of the NPOs (see chapter 8).
- We observe several cases concerning state aid in the period 2007-2010. In most cases the aid provided was found to be compatible with the Treaty rules on state aid.
- In the period 2008-2010, we also observe several national competition cases, mainly in the direct mail and unaddressed items segments, often referring to predatory pricing and rebate issues. Furthermore, important cases took place in the market for mail consolidation in France, Germany and Denmark (see chapter 4).
- We recommend that the Commission prioritises and supports competition cases in the postal sector at EU level and issues more decisions, which in turn will establish clearer case law at the European courts. A key priority should be decisions showing how to assess rebates.
- We also recommend that licensing requirements, if any, as introduced by Article 9, are verified for their compliance with (the spirit of) the postal *acquis* as identified in Article 2 and revised where necessary. Furthermore, we recommend that the processes for applying for licenses are streamlined so that they do not constitute an entry barrier.

Universal service obligation

In chapter 5, we examine the universal service obligation (USO). Our conclusions concern the current as well as the future USO.

Current USO:

- The USO definition varies across countries but seems to be stable over time. This may indicate that the USO does not evolve in line with the need of today's consumers.
- The Third Postal Directive foresees that the reserved area (the traditional source of financing for the net cost, if any, of the universal service), disappears. This has sparked a discussion about how to estimate the net costs of the USO. However, only a few countries have actually estimated net costs of the USO instead of gross costs of the USO. We recommend, like the European Committee for Postal Regulation, that NRAs calculate net USO cost based on the commercial approach.
- So far, financing of the USO does not seem to pose a major challenge in most countries. Only a few countries currently find it necessary to compensate the USP for the net costs of the USO. However, the countries that have implemented the Third Postal Directive have foreseen a compensation fund that can be activated if the USO will pose a (significant) net cost on the USP in the future.

Future USO:

- There is a growing debate, particularly in postal economic research, about the future scope of the USO. The motivation for such discussions is declining mail volumes and slowly increasing competition which may increase the costs of providing universal services. At the same time, e-substitution is changing consumers' needs.
- To help inform this debate, we have performed a novel pilot study where we examine residential as well as business customers' need for postal services. We combine three methods in this work; analysis of mail flows, qualitative questions and quantitative estimations of willingness to pay for different services.
- Our study indicates that residential customers have a low demand for frequent delivery but a high demand for a dense network of post offices. The picture for business customers is almost the complete opposite.
- We find it likely that postal operators will find it commercially attractive to satisfy the demands of business customers since they contribute with the main part of turnover and possess significant buyer power. Whether the demands of residential customers, with low buyer power will be satisfied is less certain. Hence, our pilot study suggests that USPs have commercial interest in providing frequent delivery, but not in providing a dense post office network (since business customers have very low willingness to pay for these). Thus, the USO may be needed to fulfil the residential customers' need for access to post offices.
- Our pilot study provides novel insights into the methodological challenges of assessing the need for a USO. Based on our experience, we have developed a series of recommendations for how to perform future studies of the value of the USO.
- One insight offered is that consumers are not in a position where they can directly assign value to different elements in a USO; for example to enquire about the value of a USO with five deliveries per week days versus a USO with three deliveries per week. Consumers do not have an insight into the commercial considerations of the postal provider and are thus not able to assess whether a limitation of the USO will materialise in

a reduction in the actual service level.⁵ We therefore recommend a method where the researcher defines the relevant changes in service levels resulting from a changed USO (for example that a reduction in the USO from five to three days will imply five delivery days in urban areas, but only three deliveries in rural areas), before asking respondents to assign values to the USO services.

- Finally, we recommend that the regulatory scope of the NRA is not limited to USO products. It could, for example, be based on the assessment of SMP (significant market power) as used in telecom regulation. This could ensure a more focused debate about the consumers' need for a USO, as the discussion imposing regulatory remedies to ensure fair competition is handled separately.

Postal labour markets

In chapter 6, we examine the developments in the postal labour market.

The main trends regarding the use of postal workers are:

- The postal sector continues to be very labour intensive. The average labour cost ratio among the European NPOs is 60 percent, varying from 40 percent in Sweden and the Netherlands to over 70 percent in Ireland, Spain and Greece.
- However, total NPO employment has decreased by 6 percent in total in the period 2007-2009. Only the Slovenian NPO has increased its number of full-time-equivalent employees.
- Technological development (mainly through e-substitution and automation) cost more jobs at the NPOs than competition. Whereas competition has only grown slowly (on average NPOs have lost 0.6 percentage points in market shares per year since 2007), broadband penetration has increased rapidly (on average, 4 percentage points per year). Thus, e-substitution has caused significant decline in mail volumes, a development accelerated by the financial crisis. Finally, increased automation has increased by 5 percentage point per year since 2007 on average, contributing further to the decline in employment levels. In sum, several factors have reduced the need for labour at the NPOs and the development of competition has only had a very small impact.

We have examined the links between competition and employment conditions in detail. We conclude that:

- New operators often use alternative, low-cost business models to compensate for lack of economies of scale and lack of brand recognition such that they are able to compete with established NPOs. Such business models often include a younger or less-educated workforce, a larger share of part-time contracts or alternative contract forms compared to the NPOs. We observe several examples of this, for instance in Sweden, Germany,

⁵ For example, will the operators reduce to three deliveries if they are allowed to do so – or will they continue to deliver five times per week?

Austria and Belgium. The introduction of alternative employment forms has created a fear of lower wages in the postal sector after market liberalisation.

- Downward wage pressure is unlikely if pre-liberalisation wages in the postal sector are in line with wages in other sectors employing workers with the same skill level. The development in the Swedish postal market illustrates this point.
- However, if postal sector workers have benefitted from a pre-liberalisation wage premium compared to similarly skilled staff in comparable industries, liberalisation will put a downward pressure on wages towards a market-based level.⁶
- Extensive use of self-employed deliverers might lead to wages below market level in comparable industries in the sector since self-employed workers (having the job as a secondary source of income) sometimes may be prepared to work for below market wages.
- Statutory extensions of NPOs collective agreements to the entire postal sector can impede competition. If a NPO pays a wage premium or does not use alternative working contracts (e.g. involving young workers), it has an incentive to impose sector-wide wages and employment standards close to its own. This will increase rivals' costs. The development in the German postal market illustrates this factor.
- To alleviate the problems which may be created by an extensive use of self-employed workers, we recommend that self-employed workers who have a mail delivery job as their primary source of income (i.e. working more than 20 hours per week) should, through regulation, be guaranteed an hourly minimum wage corresponding to the national minimum wage. This is the case in the Netherlands, for example. We do not recommend abolishing the use of self-employed workers in postal services as this would impede new operators from developing alternative business models to compete with the NPOs.

VAT in the postal sector

In chapter 7, we examine and the current VAT treatment in the postal sector.

We conclude that:

- The current VAT treatment in most Member States distorts competition on both output markets and input markets.
- Output distortion occurs because the USPs may exempt some of their services from VAT, but competitors cannot. This gives the USP a price advantage over its competitors when they compete for customers who are VAT exempt themselves, e.g. banks.
- Input distortion occurs because VAT exempted USPs are unable to recover input VAT and therefore have less incentive to outsource activities. Differing outsourcing strategies in Post Denmark (partly VAT exempt) and Posten AB, Sweden (subject to VAT on all activities) illustrate this point.
- The scope of VAT exemptions is not always clear and different Member States interpret it differently. For example, in some Member States it is debatable whether the VAT ex-

⁶ Copenhagen Economics (2010), *Wages and employment conditions in liberalised postal markets*, report commissioned by the Norwegian Ministry of Transport and Communications.

emption only applies to services within the USO or also to other services provided to the public by the USP. Furthermore, the scope of the exemption within the USO itself is different between countries: e.g. from a narrow exemption on single piece mail in Germany to wide exemptions on multi-product USO e.g. in Austria.

We recommend that:

- Reforms of the current VAT legislation to comply with the objective of market opening should be continued at EU level. Resumption of work initiated by the 2003 proposal to amend the (then) Sixth VAT Directive is commendable.
- One solution would be to reduce the USO scope, so that the scope of VAT exemptions is reduced to include only single piece letters, for example. This would reduce the economic distortion. The approach can be handled on a national level.
- Another solution is to implement VAT on all postal services, possibly with a reduced rate for services within the USO area. This will diminish economic distortions, but requires a change in the VAT Directive.
- Consumers will benefit from these solutions due to a more efficient postal market, but may on the other hand also pay higher prices because VAT is a consumption tax which falls on end-users (unless internalised by the NPOs).

Technological development

In chapter 8, we examine the technological developments in the postal sector. We conclude that:

- Automation has increased in nearly all countries.
- Technological development has led to fewer jobs in the sector. Increased automation has led to employment reductions which have not been outweighed by positive employment effect of new e-based services.
- The majority of NPOs provide, or plan to provide, hybrid mail or virtual delivery solutions. The majority of NPOs also offer e-commerce services, ranging from e-shops with online sale of stamps or postcards to advanced e-banking services and the provision of digital certificates.
- Nearly all NPOs have an environmental policy in place, focusing on emission reductions, transport management and waste reduction schemes.
- We recommend that NRAs continue to assess the need for the regulation of hybrid mail and virtual delivery networks. Although we do not currently see a need for regulation, regulation related to data security and confidentiality may be warranted in the coming years.

Chapter 2 MAIL MARKET DEVELOPMENTS

2.1. MAIN FINDINGS AND RECOMMENDATIONS

The postal sector – understood as encompassing those activities performed by national postal operators and competitor operators involving the collection, sorting, transporting, storing and delivering of addressed items⁷, unaddressed items, parcels as well as express services – remains a significant part of the European economy, accounting for approximately 0.6 percent of its GDP (€70.2 billion) and 0.75 percent of employment (1.62 million) in the analysed countries. The postal sector constitutes a larger share of GDP in the old Member States (EU15) than in the new Member States (EU12).

In this chapter we examine the main developments in the key sectoral indicators, the situation of national postal operators, developments in price and affordability, quality of service and effects of the financial crisis. Our analysis is based on responses provided by NRAs and NPOs, which may not be consistently available in all the countries. Where relevant, we have supplemented the missing information by conducting secondary research e.g. by consulting other published sectoral studies, annual reports of the NPOs and websites of competitor operators. Where the data is only available for a small number of countries, the reader is advised to view the conclusions drawn as illustrative rather than fully representative of the European postal sector.

National postal operators (NPOs) experienced a turbulent period from 2008 to 2010. This can be seen through declining volumes in many segments of the mail market. Our survey of NPO respondents attributed this decline in NPO revenues to the significant role played by the financial crisis. However, there is currently little data available to enable us to assess how permanent this decline will be and the current study only offers qualitative conclusions.

Between 2008 and 2010, many NPOs have continued their strategy of mergers and acquisitions. Many of these were undertaken at the international level, such as the merger of Post Danmark and Posten AB into Posten Norden. Private postal operators were also involved in mergers and acquisitions, for example DX-Group (UK postal operator) acquired In-Night (UK parcel logistics).

Letter items per capita continue to show a divide among mature and emerging postal markets. Convergence between the two markets does not appear likely in the short run. Against this backdrop, consumer prices of single mail items and parcels in the EU12 have been increasing faster than in the EU15. Price increases were also the primary driver of changes in affordability of postal services. In the case of several Member States, however, the price increases were offset by wage increases so the affordability of postal services did not change considerably.

A number of universal service providers (USPs) continued to find meeting their legal obligations with respect to transit time standards for domestic and cross-border mail challenging.

⁷ Including correspondence, direct mail, as well as publications and newspapers.

It is not uncommon to witness significant over performance with respect to the standards, e.g. in Sweden, Finland and Hungary.

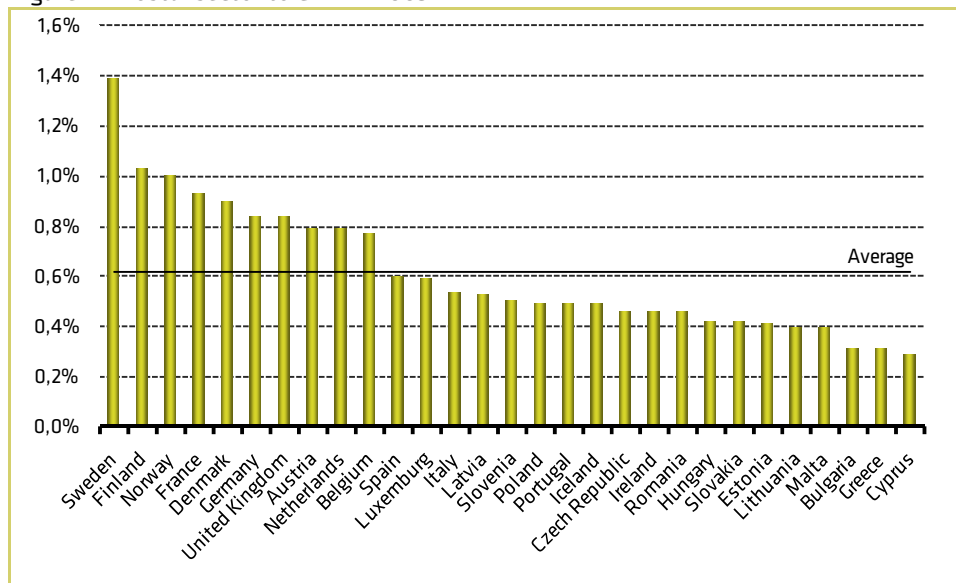
2.2. SECTOR OVERVIEW

Contribution to GDP

The postal sector remains a significant part of the European economy in terms of GDP and employment, although the importance of postal sectors varies substantially among the countries, from 1.4 percent of GDP in Sweden to 0.3 percent of GDP in Cyprus. The postal sector tends to account for more of the GDP in countries with more sophisticated postal services in comparison to countries where postal services are more basic (most of the Eastern European countries). The sector also appears to be larger in countries where reform of postal markets is relatively advanced, cf. Sweden, Finland, the UK and Germany.

On average, for the countries covered in the current study, the sector accounts for 0.6 percent of GDP, cf. Figure 2.1. The postal sector is a more important contributor to GDP in developed economies such as the Nordic countries, France, Germany, Austria, the UK and the Benelux. In these countries, it generates from 0.8 to 1.0 percent of GDP (1.4 percent in Sweden). In the remaining Southern and Eastern European countries, the sector contributes to roughly half the GDP share compared to the Northern and Western countries: from 0.4 to 0.6 percent. In Bulgaria, Greece and Cyprus the postal sector accounts for about 0.3 percent of GDP, cf. Figure 2.1.

Figure 2.1 Postal sector to GDP in 2009

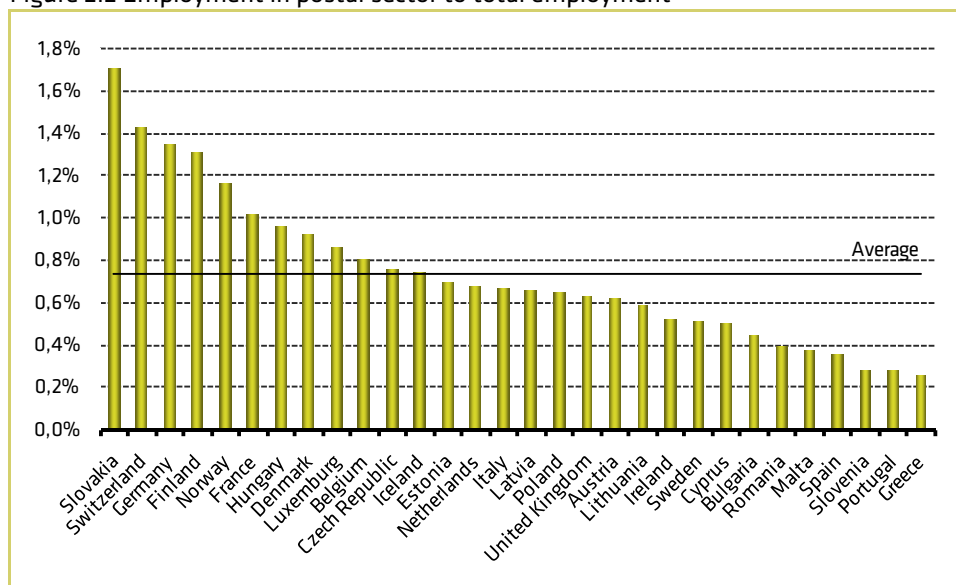


Source: Country fiche appendix, indicator x.1.1 and Eurostat

Contribution to total employment

The sector also remains an important source of jobs in Europe. In 6 countries, the sector provides more than 1 percent of total employment in the country. In 13 countries, it accounts for 0.6 to 1 percent of employment, while in 11 countries it accounts for 0.25 to 0.55 percent, cf. Figure 2.2. On average, the sector accounts for 0.75 percent of total employment in the analysed countries.

Figure 2.2 Employment in postal sector to total employment

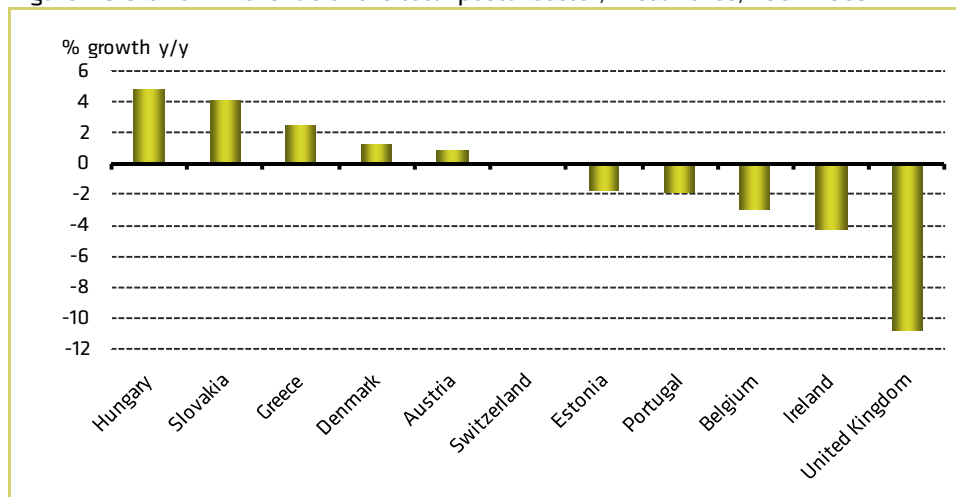


Source: Country fiche appendix, indicator x.1.1 and Eurostat

Growth of the postal sector

Based on the information from 11 NRAs on the growth in revenues of the postal sector in their countries in the years 2005 to 2009, we observe that the postal sector in those countries grew on average by 2.6 percent in the period, or approximately 0.6 percent per year, by revenues. This rate of growth appears typical of a mature industry. The sector expanded most in Denmark and Hungary, while it declined in the UK and Estonia cf. Figure 2.3. Although we did not receive data from all NRAs, we observe that the postal sector grew in the Eastern and Southern European countries (Hungary, Slovenia, Greece), i.e. markets where the level of services tends to be less sophisticated and competition is not very advanced. It may therefore be proposed that growth in these markets is due to higher economic growth rate and the introduction of new products as well as entry of new market players. Mature markets, represented by Denmark, Switzerland and Austria experienced either very small rates of growth, or declines (Ireland, UK).

Figure 2.3 Growth in revenue of the total postal sector, 11 countries, 2007-2009



Note: The missing countries did not provide information on total market revenue of the postal sector.

Source: Country fiche appendix (Indicator x.1.3)

The express mail segment, and also to a certain degree the financial and logistic segment, appears to be an important contributor to the growth of the entire postal sector⁸. The mail segment exhibited a larger volatility – it grew in 7 countries including Austria, Belgium, Greece, Hungary, Latvia, Lithuania and Malta -- while it declined in 8 countries, including Bulgaria, Cyprus, Estonia, France, Germany, Ireland, the UK and Switzerland cf. Table 2.1.

⁸ By “entire postal sector” we mean all activities of postal operators (which in many cases include the delivery of mail defined as collection, sorting, transportation and delivery), as well as related services such as express services (high speed / high value-added deliveries, sometimes by means of alternative networks and using dedicated couriers), logistics (including transport and storage of goods), financial services (such as money transfers or banking) and other services (such as sale of merchandise products). The data sourced for segments come from annual NPO reports where a breakdown is available. We note that the sectoral borderlines may be volatile since it is not always possible to ascertain the consistency of sector definitions across the countries and reporting NPOs. Therefore, our sectoral analysis is meant to be illustrative of postal operator activities.

Table 2.1 Cumulative annual growth rate in revenues of the postal sector, 2007-2009, selected segments, 18 countries

Country	Mail	Express	Logistics	Financial	Others
Austria	0.6				
Belgium	1.0	-9.1		-3.4	-9.7
Bulgaria	-5.3	7.3	-17.8	-19.8	
Cyprus	-3.2				
Estonia	-1.8	-4.1			
Finland			6.6		
France	-1.2	2.7			
Germany	-3.4				
Greece	2.0	3.1			
Hungary	0.7	18.9	-4.9	4.0	
Ireland	-5.2			-15.0	-0.5
Latvia	4.9	6.4			
Lithuania	4.0		-0.6		-0.5
Luxemburg					
Malta	2.8			0.0	14.6
Portugal		3.4			
United Kingdom	-11.3	-6.8	-16.6		-1.4
Switzerland	-3.4		0.9	5.6	-1.1
Average	-1.2	2.4	-5.4	-4.8	0.2

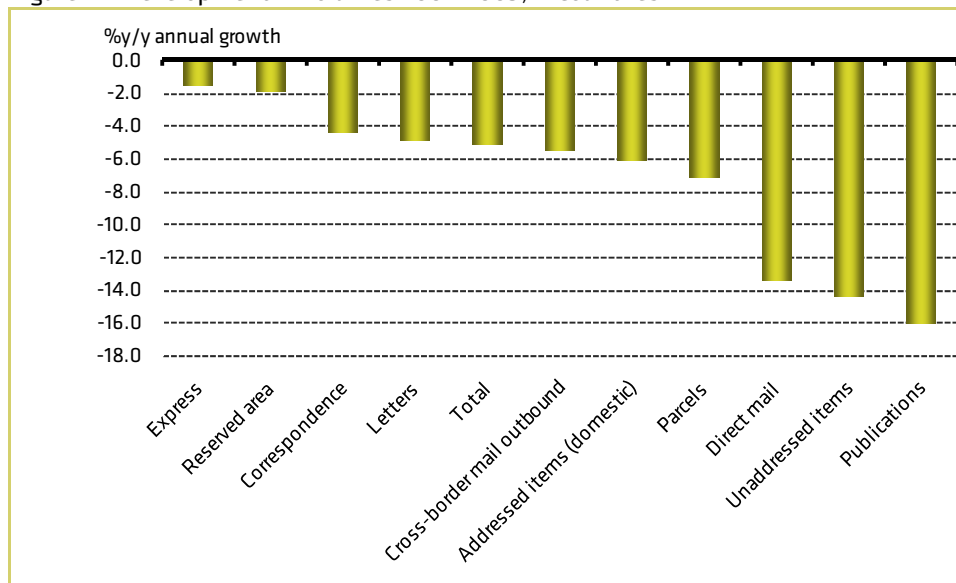
Note: The growth rate of the postal sectors is reported as it was provided by respondents in the country fiche.

Source: Country fiche appendix (Indicator x.1.3)

Turning our attention to the mail market, we notice that the recent period meant a decline in volume for all segments, corresponding to on average 5 percent lower volumes in the 11 EU Member States that provided data for the analysis, cf. Figure 2.4. The 11 countries are Bulgaria, Czech Republic, Finland, Germany, Greece, Hungary, Iceland, Luxemburg, Portugal, Slovakia, and Slovakia. Since the number of countries providing data is relatively small and not all countries provided data for all segments, we note that the analysis below is more illustrative in nature than representative of the EU sector as a whole.

The most affected segments of the mail market appear to be publications, unaddressed items and direct mail, whose volumes declined by more than 10 percent. These are the segments where prices are lowest in the market. Cross-border mail and parcels experienced significant declines in the range of 5 to 10 percent, while the decline in traditional correspondence (including the reserved area) and express was between 2 and 4 percent. The smaller declines in express and correspondence can be partially explained due to the largely business-to-consumer nature of these products and the recurring nature of the mail (e.g. monthly bills or bank statements), while for express the lack of real alternatives can be a factor.

Figure 2.4 Development in volumes 2007-2009, 11 countries



Note: Simple average growth rate for 11 national postal operators: BG, CZ, DE, EL, FI, FR, HU, LU, PT, SI, SK, IS

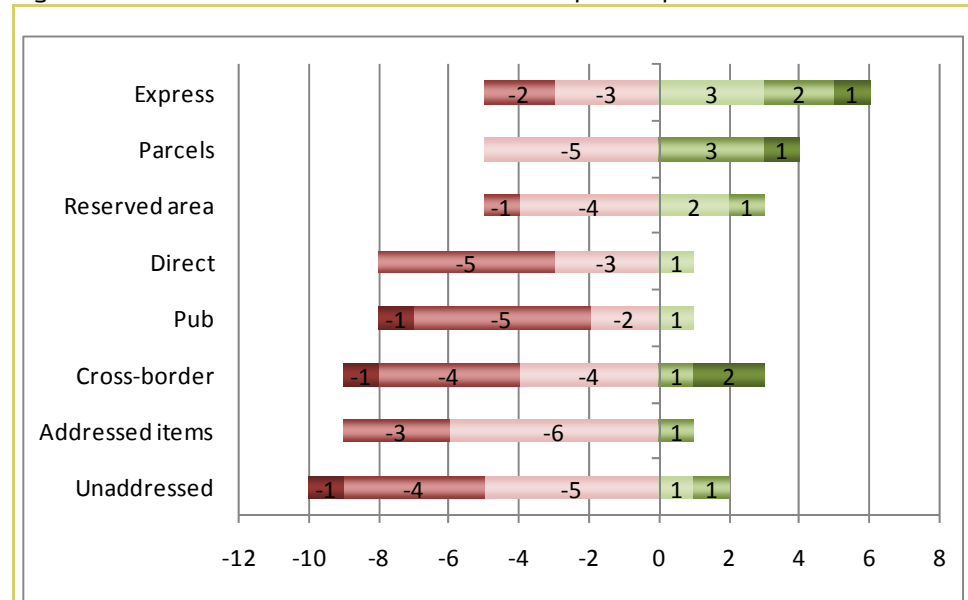
Source: Country fiche appendix, indicator x.6.1

Effects of the financial crisis

The falling revenues in the postal sector can, to a certain degree, be attributed to the financial crisis which began in 2008. To examine the role of the financial crisis on the development of revenues, we asked the respondents from NPOs to approximate its effect on revenues in 8 segments of the mail market, cf. Figure 2.5 and Table 2.2 for details on the country level. We received responses from only 9 NPOs. On the one hand, this low response rate is testimony to the sensitive nature of the information, but on the other, it may also indicate that the effects of the crisis are not yet clear in the view of many respondents.

The financial crisis had a significant effect on declining revenues from the addressed items segment, including the business mailer-dominated publications and direct mail segment, as well as the entirely business-dominated unaddressed advertising segment. This is not surprising given the decline prevalent in private consumption in the years from 2008 to 2009 – and the corresponding reduction in marketing and advertising spending for many mailers. The financial crisis had a somewhat smaller, albeit still negative effect on cross-border mail, parcels and the reserved area. In the case of cross-border mail and parcels, three NPOs indicated that the financial crisis actually led to greater revenues in the cross border segment. The increase in revenues from parcels can be attributed to greater incidence of online purchases motivated by the low search costs for lower prices online. NPOs providing express mail services recorded nearly equal positive and negative effects of the financial crisis. The positive effects can be due to the substitution of business clients away from expensive express carriers towards cheaper NPO express services.

Figure 2.5 Effects of the financial crisis on national postal operators' revenues



Note: The horizontal axis counts the number of responses received within the intervals defined below:
 Dark red (green) indicates a decline (increase) of more than 15 percent in revenue for segment
 Medium red (green) indicates a decline (increase) from 5 to 15 percent in revenue for segment
 Light red (green) indicates a decline (increase) of 0 to 5 percent in revenue for segment
 The countries that did not respond were: Austria, Belgium, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Romania, Spain, Sweden, United Kingdom, Liechtenstein and Switzerland

Source: Country fiche appendix, indicator x.6.5

Table 2.2 Effects of the financial crisis on national postal operators' revenues (percentage intervals)

	CZ	EL	HU	IE	IS	LU	NO	PT	SI	SK
Addressed items	decline 0-5 percent		decline 0-5%	decline 6-15%	decline 6-15%	decline 0-5%	decline 6-15%	decline 0-5%	decline 0-5%	decline 0-5%
letter	decline 0-5%	increase 0-5%			decline 6-15%	decline 0-5%		decline 0-5%	decline 0-5%	decline 0-5%
Correspondence	decline 0-5%	increase 0-5%	decline 0-5%			decline 0-5%		decline 0-5%		decline 0-5%
Reserved area	decline 0-5%	increase 0-5%	decline 0-5%		decline 6-15%	decline 0-5%			increase 0-5%	decline 0-5%
Direct	decline 0-5%	decline 0-5%	decline 0-5%			decline 6-15%		decline 6-15%	decline 6-15%	decline 6-15%
Publications	decline 0-5%	decline 0-5%	decline 6-15%		decline > 15%	decline 6-15%		decline 6-15%	decline 6-15%	decline 6-15%
Unaddressed	decline 0-5%	decline > 15%	decline 0-5%	decline 0-5%	increase 0-5%	decline 6-15%	decline 6-15%	decline 0-5%	decline 0-5%	decline 6-15%
Cross-border	decline 6-15%	decline 0-5%	increase 6-15%	decline 6-15%	increase > 15%	decline > 15%	decline 6-15%	decline 0-5%	decline 0-5%	increase > 15%
Express	increase 0-5%	decline 6-15%	decline 0-5%	Conf.	increase > 15%	decline 6-15%	decline 0-5%	decline 0-5%	increase 0-5%	increase 6-15%
Parcels	increase > 15%	increase 6-15%	decline 0-5%	Conf.	increase 6-15%		decline 0-5%	decline 0-5%	decline 0-5%	decline 0-5%
Total	increase 0-5%	decline 0-5%	increase 6-15%	decline 6-15%			decline 6-15%		decline 6-15%	

Note: The countries that did not respond were: Austria, Belgium, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Romania, Spain, Sweden, United Kingdom, Liechtenstein and Switzerland

Source: Country fiche appendix, indicator x.6.5

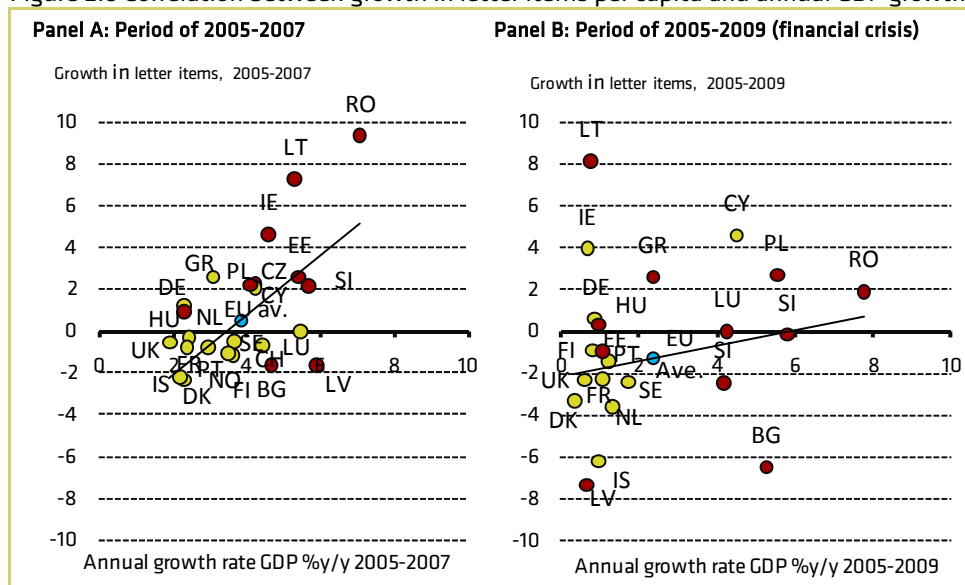
There is little data available at present to assess how persistent this effect of the financial crisis will be – in other words, will it lead to structural changes in the product mix offered by NPOs. On one hand, the long term demand in the mail market is cyclical and volumes pick up after a period of crisis. This argument would suggest that the financial crisis itself is not likely to fundamentally alter the terms of business for the NPOs in the long run. However, in our assessment, the crisis is likely to have the following long-term implications:

- It may reinforce business consumer preferences towards cheaper alternatives to traditional mail, such as electronic communication instead of sending large volumes of direct mail. Thus, the crisis is likely to accelerate the effects brought about by e-substitution.
- It may spark more innovation as NPOs seek to protect the falling volumes in the traditional segments, for example through the introduction of hybrid mail or virtual delivery networks.
- It may increase the orientation of NPOs on higher value-added services, such as express services, and intensify competition in these segments.
- It may increase the importance of parcel delivery and logistic/transport activities.
- It may increase the importance of cross-border flows of parcels and letters due to the increased incidence of e-commerce.

Letter items per capita

Letter items per capita continue to show a divide among the relatively saturated and stable EU15 markets and the less saturated, but faster growing, EU12 markets. Countries of the EU12 with the highest growth in letter items per capita 2005-2007 had the highest GDP growth in the period 2005-2007, cf. Figure 2.6, Panel A. This can be regarded as evidence of catching up among the countries with emerging postal markets⁹. Although the evidence is good for the years from 2005 to 2007, the evidence is not there for the years from 2005 to 2009, cf. Figure 2.6, Panel B. This is due to the fact that the financial crisis severely affected the GDP in many countries, particularly the Baltic States.

Figure 2.6 Correlation between growth in letter items per capita and annual GDP growth



Note: EU12 are in red, while EU15 with Iceland, Liechtenstein, Norway and Switzerland are yellow. GDP are in millions PPS.

Source: Country fiche appendix, indicator x.1.2 and Eurostat

If the current growth trend is extrapolated, and markets return to status quo after the financial crisis, a convergence between the two markets is possible in the future. However, there is considerable uncertainty in this scenario: Letter items per capita are likely to stabilise or decline in all markets due to e-substitution. Furthermore, future growth in developing markets may be slowed down due to the price increases which are likely to occur as a result of convergence.

Significance of business customers

Business customers continue to be responsible for shaping developments in volumes and revenues of postal operators. With the exception of the reserved area, express, parcels and cross-border mail, business clients on average account for 80 to 90 percent of sent mail vol-

⁹ Due to the limited number of responses, it is not possible to comment on the actual rate of growth for the postal market in the years 2005-2009, and instead the GDP growth rate is used as proxy.

umes in the 10 countries that provided revenue decomposition for the national postal operator, cf. Table 2.3.¹⁰

Table 2.3 Percentage share of business to total revenues, selected segments, 10 countries, 2009

	Bulgaria	Czech Rep.	Finland	Germany	Greece	Hungary	Luxemburg	Portugal	Slovakia	Iceland	Average
Addressed items	53	80	95		96	77	65	97	80	87	81
Letters		80	92		96	76	64		79	87	82
Correspondence		74	90	84	95	88		97	77		86
Reserved area					95	43	64		85	87	75
Direct mail		99				100			94		99
Publications										97	97
Unaddressed items		81				93			99	94	92
Cross-border mail outbound		29	90		90	29	63	52	66	20	55
Express	91	50			43				95		70
Parcels		69	83	85	62	58			78	72	73

Note: Average is a simple arithmetic average. Omitted countries did not provide information on information split on different customer

Source: Country fiche appendix, indicator x.6.1

2.3. SITUATION OF THE NATIONAL POSTAL OPERATORS

Organisational status and ownership of the NPOs

By 2010, the evolution of the organisational status of the NPO away from state owned enterprise to limited company or joint stock company forms is almost complete, although organisational and ownership restructuring of the NPO was never part of the EU postal reform.

The national postal operators are state enterprises in Cyprus and the Czech Republic. Despite the change in the legal form, the state continues to hold a controlling stake in the firms, with the exception of Germany, Malta and the Netherlands. The state controls 100 percent of the national postal operator's stock in 18 countries, cf. Table 2.4.

While the intention of the changes to organisational status and privatisation is to create more efficient governance structures for national postal operators, the process does not appear to be unproblematic. Despite the disappearance of state-owned companies and the creation of private or public liability or stock-company legal forms, the new entities do not always undergo restructuring while the state often remains an owner of the new legal entity. In cases of vertically integrated companies (normally incumbents) where restructuring does not

¹⁰ Due to the relatively low number of countries providing data, our conclusions should be treated more as illustrative rather than as fully representative of the EU postal sector. The inclusion of countries from all EU regions (North, East, South, West) strengthens the illustrative value of the analysis.

bring a separation of network and operation, the “bundling” is likely to remain a problem for competition. If the owner of the infrastructure is at the same time the main operational market player (with significant market power), there remains a danger of access problems for competitors, distortion of competition and protectionism. Cross-subsidisation can also be a problem of certain company structures. Likewise, strong state ownership means that the controlling and regulatory functions of NRAs may continue to be challenged.

Table 2.4 Organisational status and ownership of the national postal operator

Country	Legal status	State ownership
Austria	Public Limited Company	52,83%
Belgium	Public Limited Company	50% + 1 share
Bulgaria	Corporation	100%
Cyprus	Part of Ministry of Communications and Works	100%
Czech Republic	State Enterprise	100%
Denmark	Public Limited Liability Company	100%
Estonia	Public Limited Company	100%
Finland	Public Limited Company	100%
France	Limited Company	100%
Germany	Public Limited Company	30,5% (KfW Bankengruppe)
Greece*	Limited Liability Company	90%
Hungary	Limited Company	100%
Ireland	Public Limited Company	100%
Italy	Public Limited Company	65%
Latvia	Joint Stock Company	100%
Lithuania	Stock Company	100%
Luxemburg	Public Limited Company	100%
Malta	Public Limited Company	0%
Netherlands	Public Limited Company	0%
Poland	Joint Stock Company	100%
Portugal	Public Limited Company	100%
Romania	State ownership	100%
Slovakia	Joint Stock Company	100%
Slovenia	Limited Liability Company	100%
Spain	Public Limited Company	100%
Sweden	Public Limited Company	100%
United Kingdom	Limited Company	100%
Iceland	Public Limited Liability Company	100%
Norway	Limited Company	100%
Switzerland	State Enterprise	100%

*Note: * Greece is currently considering selling an extra 39% point of their share. Liechtenstein did not provide information*

Source: Country fiche appendix, indicator x.5.1

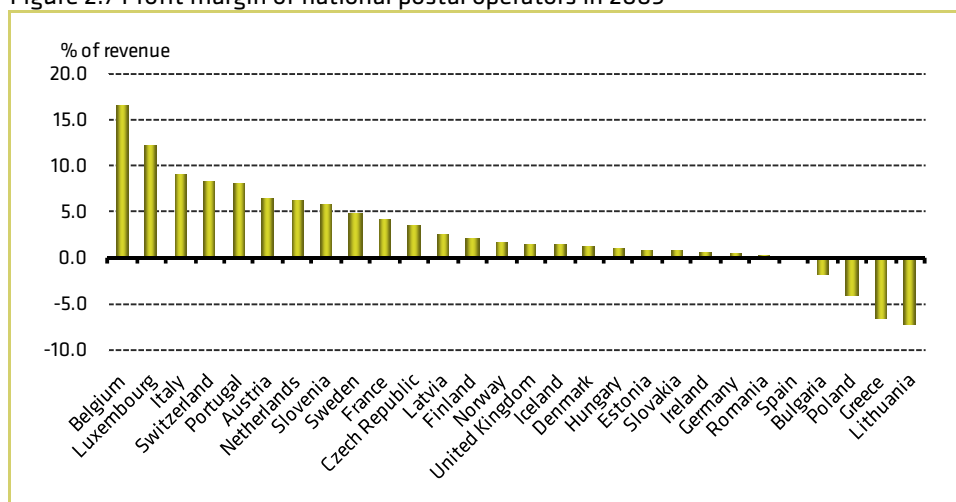
Financial situation of the NPO

Amid the relatively difficult market conditions demonstrated by the overall decline in volumes, European NPOs experienced markedly different levels of profit before tax from their operations in 2008. The NPOs can be split into three groups: very profitable, profitable and not profitable.

23 of the 28 reporting NPOs have a positive profit margin in 2008 cf. Figure 2.7. The greatest profit margins of around 10 percent were achieved by the NPOs in Belgium, Luxem-

bourg, Italy, Switzerland and Portugal. 5 NPOs reported deficits, Lithuania, Greece, Poland, Bulgaria and Spain. In the remaining cases, the levels of profit were modest, between 5 and 0 percent, which is characteristic of a mature and stable industry.

Figure 2.7 Profit margin of national postal operators in 2009



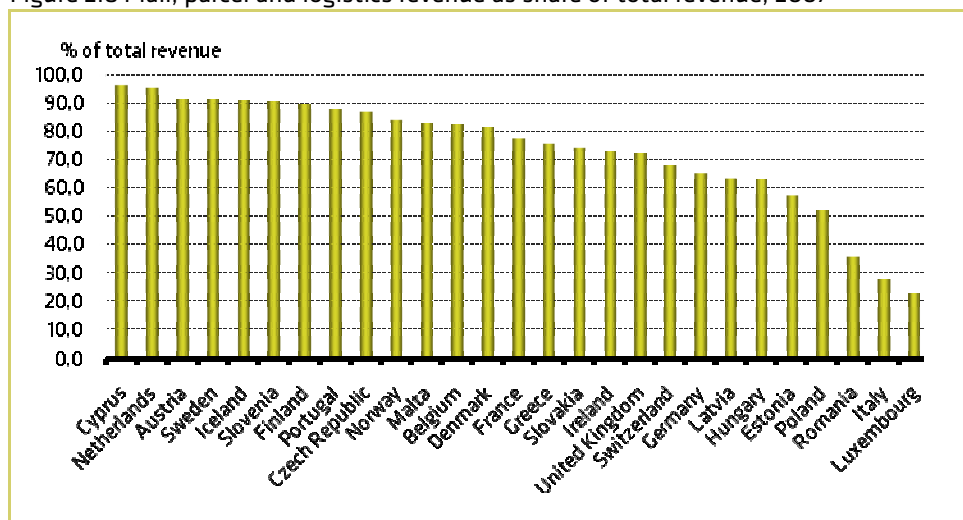
Note: Romania and Spain have very small positive and negative profits before tax respectively. Therefore, their columns are not visible.

Countries that did not supply information: Cyprus, Malta and Liechtenstein

Source: USP annual reports and Country fiche appendix, indicator x.5.2

The importance of mail, parcel and logistic services vs. other services, such as financial services, differs significantly among NPOs. In Cyprus, around 97.5 percent of NPO revenues are generated by the “traditional” activities, though they only account for 20 percent of revenue in of the NPO in Luxembourg, cf. Figure 2.9. The share of “traditional” activities in the NPO revenue is likely to reflect the business strategy chosen by the firm in response to local demand conditions – as well as other factors such as consumer behaviour and traditions.

Figure 2.8 Mail, parcel and logistics revenue as share of total revenue, 2007



Note: Bulgaria, Lithuania, Spain, Liechtenstein did not provide information

Source: ITA/WIK (2009), company annual reports

Merger and acquisition activity of NPOs

NPOs have been active on the market for mergers and acquisitions and most NPOs can already be considered “postal groups”. An example of a postal group could be a company that holds businesses which operate in the regular areas as addressed items, express delivery as well as other business areas such as gift vouchers and post banking. In the analysed period, the NPOs continued their expansion using three strategies:

- Horizontal expansion – i.e. acquisitions of a firm at the same level in the value chain as the acquirer. One example is the Belgian NPO buying up MSI International that operates in several areas (incl. the US) and can be considered a small “postal group”.
- Vertical consolidation – i.e. acquisition of a firm upstream or downstream in relation to the acquirer. An example of vertical consolidation is Hungarian NPO buying Posta Kézbesítő Ltd., a subcontractor that operates in delivery and distribution.
- Diversification – i.e. acquisition of a firm in an unrelated value chain. The acquisition of IT service and consulting firm Bekk AS by the Norwegian NPO is an example of diversification by the NPO.

Very often, the NPOs merger and acquisition activity was cross-border in scope. Notable examples include the horizontal merger of the Danish and Swedish NPOs into one firm, Posten Norden. Another example is DHL Deutsche Post’s acquisition of several international logistics firms and express delivery firms. Six NPOs reported vertical consolidation. Vertical consolidation activity was distributed evenly domestically and internationally. These acquisitions consisted primarily of logistics but some were IT and postal consulting firms. Diversification into new, related and unrelated value chains was reported by five NPOs. These were primarily acquisitions of express and delivery firms (which can be considered related diversification) but also postal banking, IT consultancy, e-platforms and gift services (which can be

considered unrelated diversification). The summary of merger and acquisition activities of the NPOs is provided by Table 2.5.

Table 2.5 Mergers and acquisitions of NPOs since 2007

Motive	Domestic scope	International scope
Horizontal expansion		<ul style="list-style-type: none"> ■ Belgium: MSI Worldwide Mail; ■ Denmark/Sweden: Post Danmark (Denmark) and Posten AB (Sweden);
Vertical consolidation	<ul style="list-style-type: none"> ■ Finland: DH-Tools Oy, Kauko Group Oy, Tuottotieto Oy ■ Latvia: Latvijas Pasta Nodaļu Tīkls (post office network) ■ Hungary: Posta Kézbesítő Ltd. ■ Iceland: INTIS ■ Switzerland: FM Verzollungs AG, ANZA Security GmbH, Fleetconsulting AG, Dispodrom AG, IT Service-House AG, Microgen UK Ltd 	<ul style="list-style-type: none"> ■ Finland: PS Logistics AB (Sweden), BusinessPoint S.A. (Poland), Hansar Logistics AB (Sweden), NLC Group (Russia); ■ Germany: Williams Lea Holdings Plc (UK), Exel-Sinotrans Freight Forwarding Co. Ltd. (China), FC International Transportation Ltd. (Israel); Norway: Transflex AB (Sweden), Combitrans AS (Sweden); IMS Europe AB (Sweden)
Diversification	<ul style="list-style-type: none"> ■ Belgium: CNS, Express Road, MG Road Express; ■ Germany: AeroLogic GmbH, Postbank Versicherungsvermittlung GmbH ■ Ireland: Fortis (post banking joint venture), Gift Voucher Shop ■ Portugal: Campos Envelopagem ■ Norway: Bekk AS ■ Switzerland: Highnes Group, Prevag Presse Vertriebs AG, ZUVO Zustell- und Vertriebsorganisation AG, Espace Media Vertriebs AG, Pressevertriebs GmbH 	<ul style="list-style-type: none"> ■ Germany: Express Couriers Australia Pty Ltd. (Australia), Polar Air Cargo Worldwide Inc. (USA), The Stationary Office Holdings Limited (UK), ASTAR Air Cargo Holdings LLC (USA), Polar Air Cargo Worldwide Inc. (USA) ■ Norway: System AB (Sweden) ■ Switzerland: Graphic Data Ltd. (UK), Global Business Services Plus (Slovakia)

Note: Horizontal expansion – means acquisition of a firm at the same level in the value chain as the acquirer

Vertical consolidation – means acquisition of a firm upstream or downstream in relation to the acquirer

Diversification – means acquisition of a firm in an unrelated value chain

Source: Country fiche appendix, indicator x.5.5

Several mergers and acquisitions also took place among private postal operators, logistic firms and express carriers. They were typically horizontal expansions on a domestic scale. Table 2.6 summarises some of most significant activity, though the list may not be exhaustive.

Table 2.6 Mergers and acquisitions of private postal operators since 2007

Motive	Domestic scope	International scope
Horizontal expansion	<ul style="list-style-type: none"> ▪ DX-Group (UK postal operator): In-Night (UK parcel logistics) ▪ FedEx UK (UK logistics services): ANC Group Ltd. (Express delivery) ▪ City Link Ltd. (UK express delivery): Target Express (UK express delivery) 	▪ -
Vertical consolidation	<ul style="list-style-type: none"> ▪ Pin Mail AG (Germany – postal operator): Georg von Holtzbrinck (Publishing) 	▪ -
Diversification	▪ -	▪ -

Note: Horizontal expansion – means acquisition of a firm at the same level in the value chain as the acquirer

Vertical consolidation – means acquisition of a firm upstream or downstream in relation to the acquirer

Diversification – means acquisition of a firm in an unrelated value chain

Source: Amadeus database and company webpages

2.4. PRICES AND AFFORDABILITY

Price levels and developments

Article 3 of the Directive requires prices of universal postal services to be “affordable”. The Directive does not specify how affordability is to be measured, leaving this to Member State discretion. In this section, we analyse the prices of postal items. We are specifically examining at price levels and growths of 20g tariff letters and 1kg parcels as these are some very commonly-used items in all countries. We measure affordability by calculating the number of minutes of work an industrial worker is required to spend before taxes to afford a particular service.¹¹

The consumer prices for postal services differed greatly between countries. The 20g tariff letters were priced between €0.23 and €0.81 in 2009 after purchasing power standard (PPS)-adjustment¹², cf. Figure 2.9. Slovakia had the highest price for 20g tariff letter followed by Latvia, Norway and Finland. Malta, Slovenia, Cyprus and Iceland experienced the lowest prices. The other countries’ prices remained not far from the average €0.50.

¹¹ Cf. Deutsche Post (2010) for similar price and affordability comparisons in Europe.

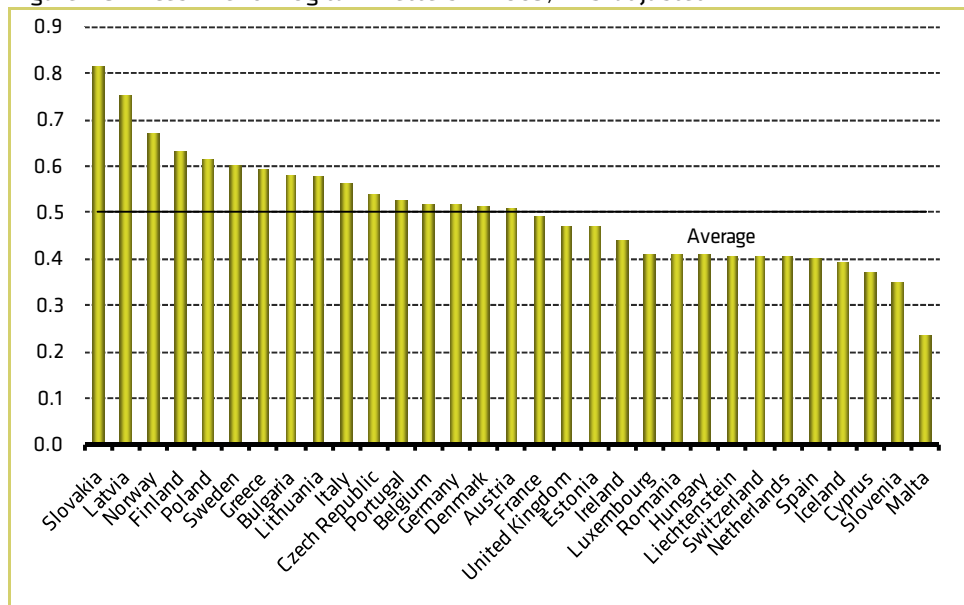
¹² Purchasing power standard (PPS) is a measure of purchasing power. The PPS is calculated for each country every year by Eurostat (cf. appendix C for an overview of the applied PPS-rates). To estimate this, we use PPS for household consumption which is equal to the PPS for GDP. The general method for calculation is:

$$\text{PPS adjusted price} = (\text{Price of item in } \text{€}) / (\text{PPS of country})$$

When PPS is less than 1 it means that country is relatively cheap, therefore the price have to be adjusted upwards. Vice versa for relatively expensive countries PPS is greater than 1. The PPS adjustment eases the comparison of prices to account for the relative price level of the country. An example of calculation for Italy’s 1 kg parcel price:

$$\text{PPS price (Italy)} = \frac{0,6\text{€}}{1,053} = 0,57 \text{ €}$$

Figure 2.9 Prices in € for 20g tariff letters in 2009, PPS-adjusted

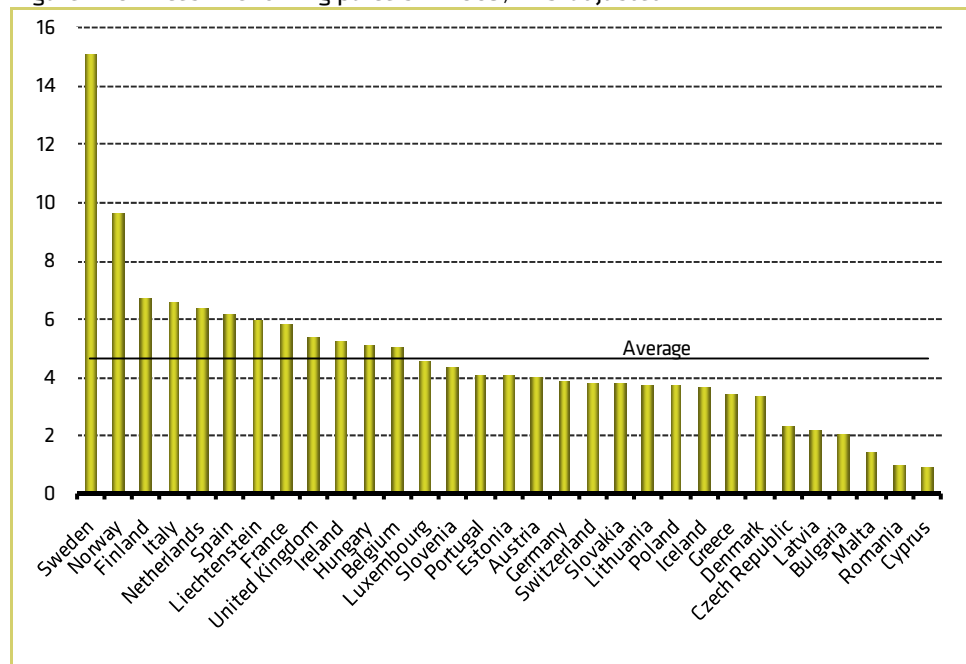


Note: For Slovakia, the price refers to a 50g tariff letter since there is no 20g tariff.

Source: Country fiche appendix, indicator x.7.1

The price range for 1kg parcels was large as it was between €0.9 and €15.1 in 2009 after PPS-adjustment, cf. Figure 2.10. Sweden, Norway and Finland had the three highest prices again, but relative price difference on 1kg parcels was much greater than that of 20g tariff letters. Italy, Netherlands and Spain also had relatively high prices. Cyprus, Romania, Malta, had the lowest prices at under €2 per 1kg parcel. Bulgaria, Latvia and Czech Republic also had very low prices.

Figure 2.10 Prices in € for 1 kg parcels in 2009, PPS-adjusted*



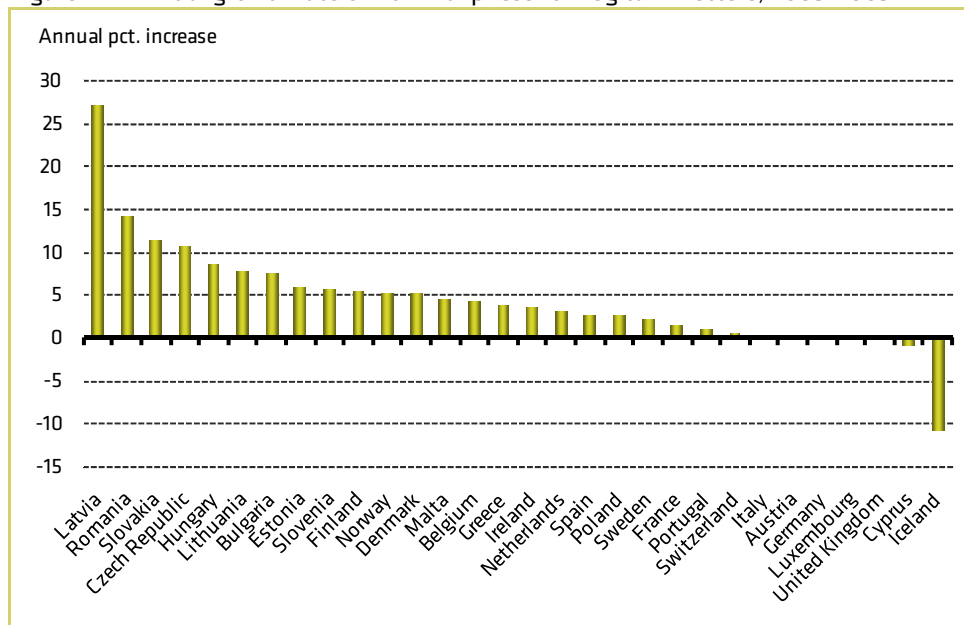
Note: *) The above prices may refer to different weight intervals in different countries. For example, in Italy the price for universal parcel is flat (€7) for parcels between 1kg and 10kg, which tends to overestimate the price for 1kg parcel.

Source: Country fiche appendix, indicator x.7.1

In the period 2005-2009, consumer prices for postal services grew in many of the markets which provided data for comparison.

Consumer prices for a 20g letter grew most noticeably in the new Member States: Latvia, Romania, Slovakia and Czech Republic, exceeding a growth rate of 10 percent per annum. Hungary, Lithuania, Bulgaria also had high price increases in the region of 8 percent annually. It is noteworthy that the increase takes place from a relatively low starting level in comparison to the EU15 market. The price decrease was largest in Iceland with over 10 percent annual decrease. Cyprus had a small price decrease of less than 1 percent annual decrease, cf. Figure 2.11.

Figure 2.11 Annual growth rate of nominal prices for 20g tariff letters, 2005-2009



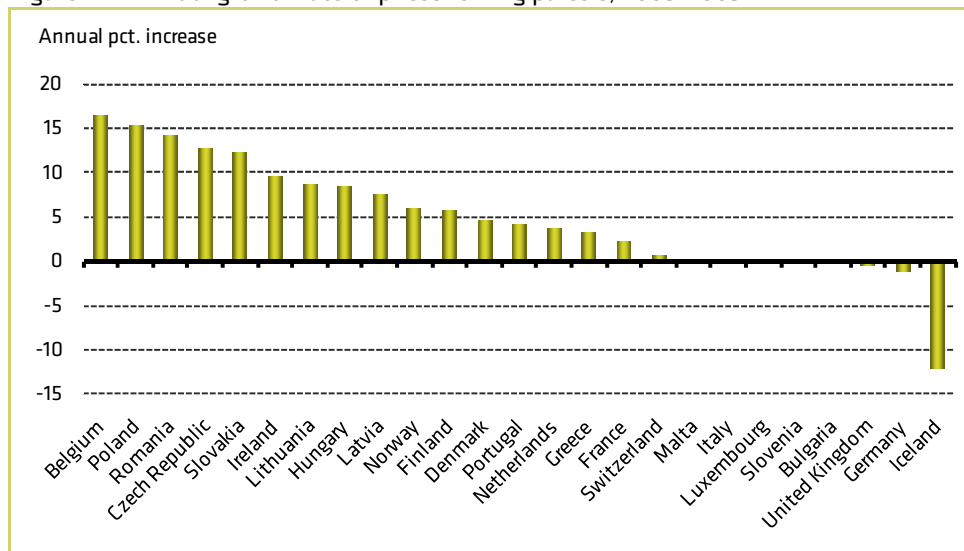
Note: Liechtenstein did not provide information nor was the historical price available elsewhere.

Some countries that have experienced large price changes have been affected by both currency and price fluctuations. Examples of countries with large changes in currencies from 2005-2009 are Poland, Iceland and Latvia.

Source: Country fiche appendix, indicator x.7.1

The individual increases in absolute nominal price in € for 1kg parcels tended to be larger than for a 20g letter, although the relative price changes were smaller. The highest relative price increases from 2005 to 2009 for 1kg parcels were annually around 15 percent in Romania, Belgium and Poland. Czech Republic and Slovakia also had high price increases over 10 percent annually. The largest price decreases were found in Iceland, Germany, and the United Kingdom; and for Iceland the observed decline in prices expressed in Euro was due to drop in exchange rates which offset the increase in Icelandic króna prices, cf. Figure 2.12.

Figure 2.12 Annual growth rate of prices for 1 kg parcels, 2005-2009



Note: The following countries did not provide any information on historical prices nor was it available in other studies; Austria, Cyprus, Estonia, Spain, Sweden and Liechtenstein.

Some countries that have experienced large price changes have been to the effect of both currency and price change. Examples of countries with large changes in currencies from 2005-2009 are Poland, Iceland and Latvia.

Source: Country fiche appendix, indicator x.7.1

Developments in affordability

To examine changes in affordability we have calculated how many minutes of work (before tax) are required to afford two standard mail products: A single letter of 20g and a single parcel of 1kg in different countries. As a proxy for wages we used the “Average hourly labour cost” statistics from Eurostat.¹³ Prices of letters and parcels were provided by the NRAs. Prices of 20g letters and 1kg parcels in Finland, Norway, Slovenia and Sweden contain the VAT whose value is shown in the price, cf. chapter 7 for more on the VAT issue.

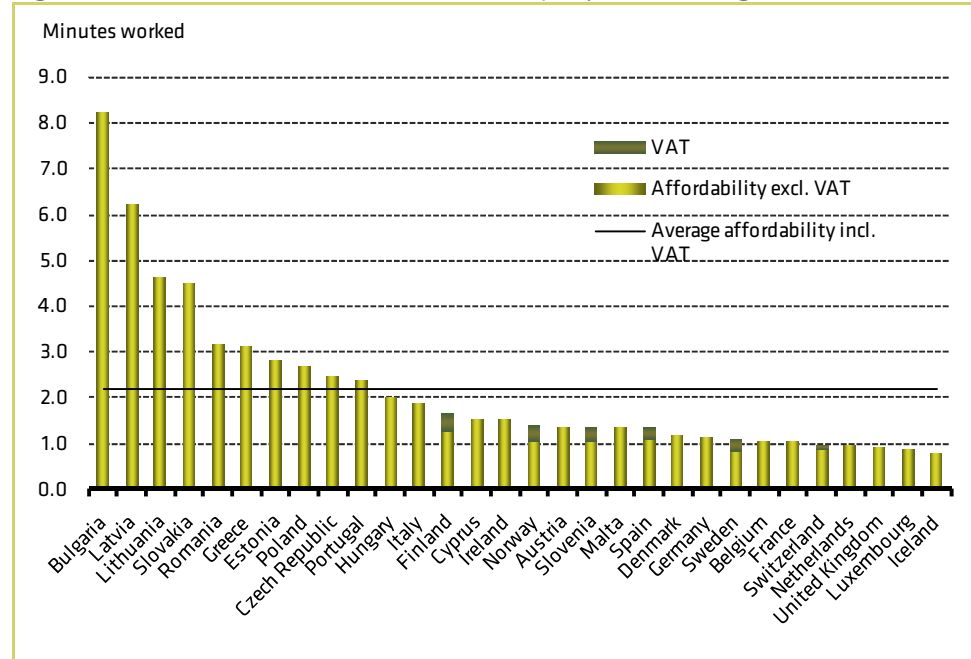
From 2007 to 2008, changes in the affordability of postal services have been driven primarily by changes in the price of postal products rather than by changes in wages in the individual countries. Since 1kg parcels cost more than 20g letters, the former have experienced larger movements in the affordability measure. On average, it took 1.7 minutes of work to afford a 20g letter.

The affordability of the 20g tariff letters was due to the fact that it required between 0.8 and 8.2 minutes of work time cf. Figure 2.13. The countries with the greatest affordability (the smallest number of minutes worked) were Iceland, Luxembourg, United Kingdom followed by Netherlands and Switzerland. All these countries required less than 1 minute of work to afford 20g tariff letter. The least affordable were Bulgaria and Latvia with over 6 minutes

¹³ Average hourly labour costs, defined as total labour costs divided by the corresponding number of hours worked.

working time. Lithuania and Slovakia also had high work rates with around 4.5 minutes required work.

Figure 2.13 Number of minutes of work necessary to purchase a 20g tariff letter, 2009.



Note: An increase in the number of minutes means that the product has become less affordable.

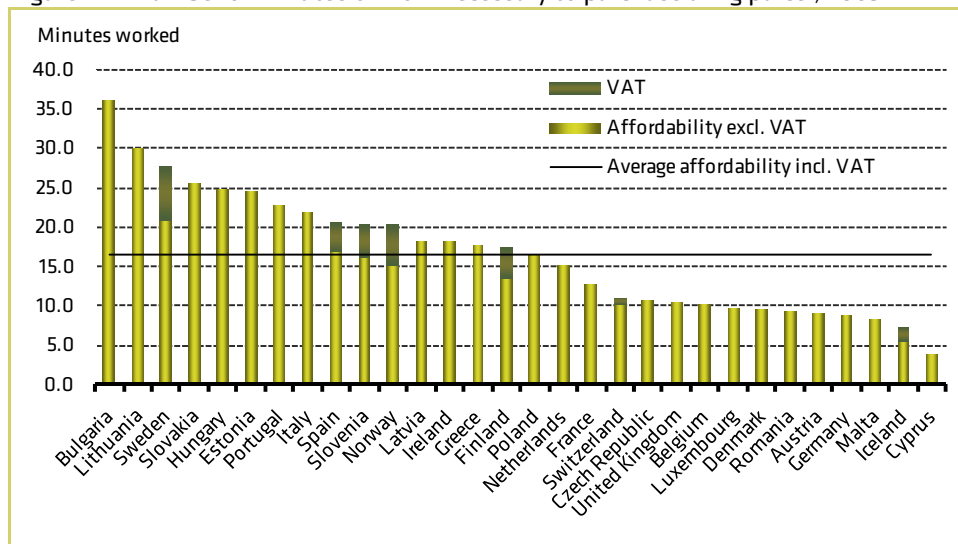
The calculation is based on Hourly Wages Before Tax but with VAT on the mail product in countries where it applies.

For Liechtenstein there was no comparable wage data, making the calculation impossible.

Source: Country fiche appendix, indicator x.7.2 and Eurostat

The affordability of 1 kg parcels in 2009 was spread between 3.8 and 36.0 minutes of work required, cf. Figure 2.14. Cyprus had the highest affordability with only 3.8 minutes work required. 7 countries had high affordability with less than 10 minutes work required (low amount of minutes of work required); Iceland, Malta, Germany, Austria, Romania, Denmark. The least affordable countries were Bulgaria and Lithuania with over 30 minutes work required. Sweden, Slovakia, Hungary and Estonia all had around 25 minutes work necessary to afford a kg parcel in 2009.

Figure 2.14 Number of minutes of work necessary to purchase a 1kg parcel, 2009



Note: An increase in the number of minutes means that the product has become less affordable.

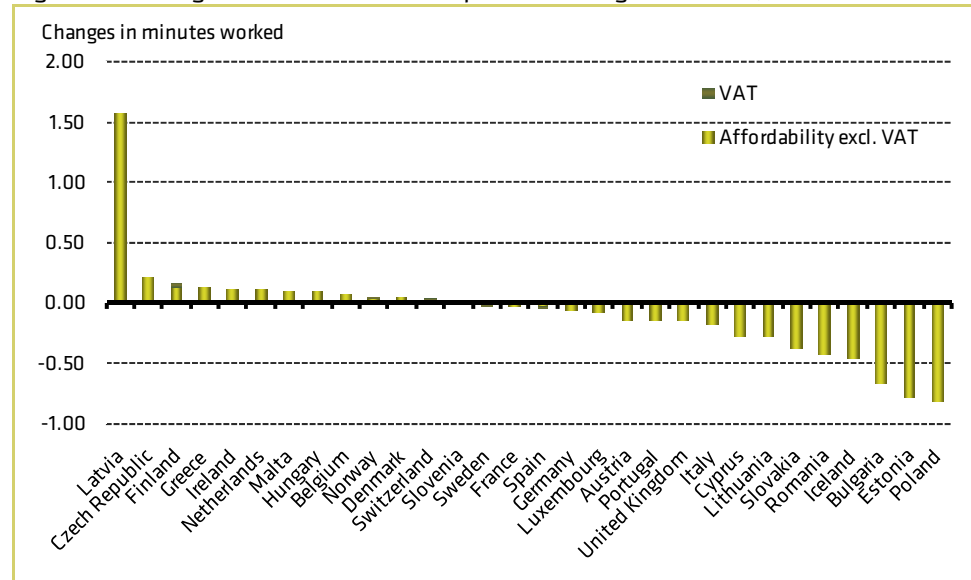
The calculation is based on hourly wages before tax but with VAT on the mail product in countries where it applies.

For Liechtenstein there was no comparable wage data, making the calculation impossible.

Source: Country fiche appendix, indicator x.7.2 and Eurostat

Examining the development in affordability of a 20g letter, we find that in the mature markets including Denmark, Switzerland, Norway, Sweden and France, affordability of letter mail items has been stable. Another observation is that we find no discernible trends between the EU12 and EU15. In fact, the EU12, Poland and Estonia have seen the greatest increase in affordability while Latvia and the Czech Republic have seen the largest decrease, cf. Figure 2.15. This is because Latvia and the Czech Republic has seen a large increase in prices while wage increases have been moderate. Poland, Estonia and Bulgaria have experienced a growth in prices whereas wages have surged, meaning that real prices have been lowered considerably. Slovenia, which already transposed Directive 2008/6/EC and Germany whose laws are highly aligned with the Postal Directive though have not formally transposed it, have experienced opposite developments in the price level, although the price changes only had a small effect on affordability. In Germany prices declined slightly while wages remained constant, which made postal services more affordable. In Slovenia, prices increased, but so did the wages –there was therefore no change in affordability.

Figure 2.15 Change in minutes of work to purchase a 20g tariff letter, 2005-2009.



Note: An increase in the number of minutes means that the product has become less affordable.

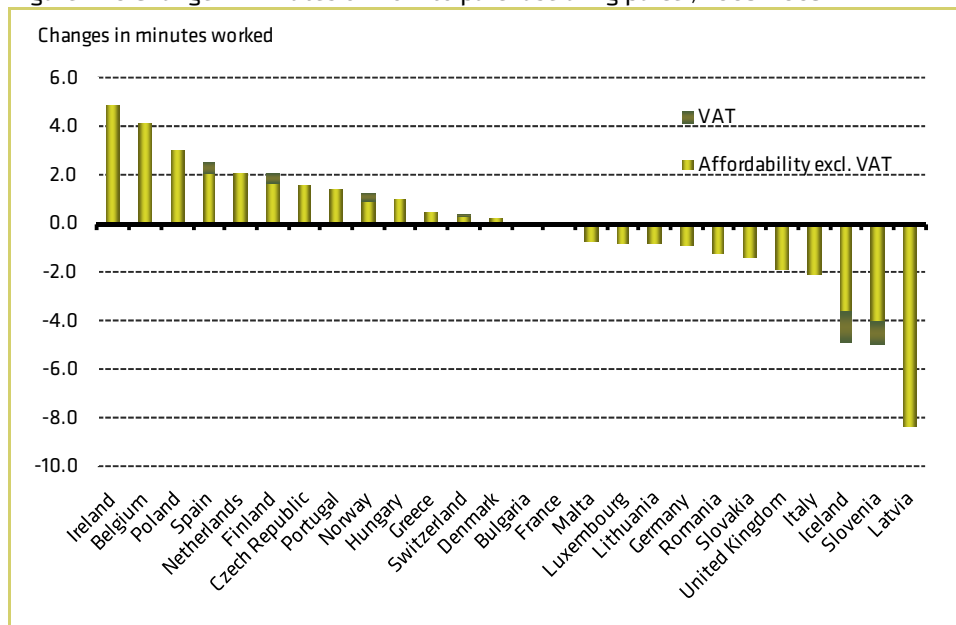
The calculation is based on Hourly Wages Before Tax but with VAT on the mail product in countries where it applies.

For Liechtenstein there was no comparable wage data, making the calculation impossible.

Source: Country fiche appendix, indicator x.7.2 and Eurostat

Since 1kg parcels cost more than 20g letters, the former are likely to experience larger movements in the affordability measure. We observe this in Figure 2.16. Price increases are driven by higher tariffs, especially in Ireland and Belgium as well as Poland, Spain, the Netherlands and Finland. Price declines are driven by higher wages and stable tariffs in Latvia, Slovenia and Iceland. Latvia still experienced huge price increases but these were outweighed by even larger wage increases.

Figure 2.16 Change in minutes of work to purchase a 1kg parcel, 2005-2009



Note: An increase in the number of minutes means that the product has become less affordable.

The calculation is based on hourly wages before tax but with VAT on the mail product in countries where it applies.

The following countries did not provide any information on historical prices nor was it available in other studies; Austria, Cyprus, Estonia, Sweden and Liechtenstein

Source: Country fiche appendix, indicator x.7.2 and Eurostat

Promoting access and affordability

Article 12 of the Postal Directive, which defines the scope of NRA price regulation, requires Member States to take steps to ensure that USO tariffs are, among other things, “non-discriminatory” and “affordable”. The responsibility for promoting access to “non-discriminatory” prices is vested with the NRA in 28 countries. In addition to that, 16 countries define affordability in their national legislation, cf. Table 2.7.

Table 2.7 Price affordability regulation

Question	Answer	Count	Country
Non-discriminatory prices (Art. 12) required?	Yes	28	AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LT, LU, LV, MT, NL, NO, PL, PT, RO, SI, SK, UK
	No	1	CY
	Mixed answer*	1	SE
	Unanswered	1	CH
Affordability (Art. 12) defined in national law?	Yes	16	AT, BG, CZ, DK, EE, FR, EL, HU, IE, IT, LI, LT, PL, PT, SI, SK
	No	9	CY, ES, IS, LU, MA, NL, NO, RO, UK
	Mixed answer*	5	BE, DK, FI, LV, SE
	Unanswered	1	CH

Note: * There may be a weak a law but its scope is undefined

Source: Country fiche appendix, indicator x.3.4

For more on rate regulation, cf. chapter 3.

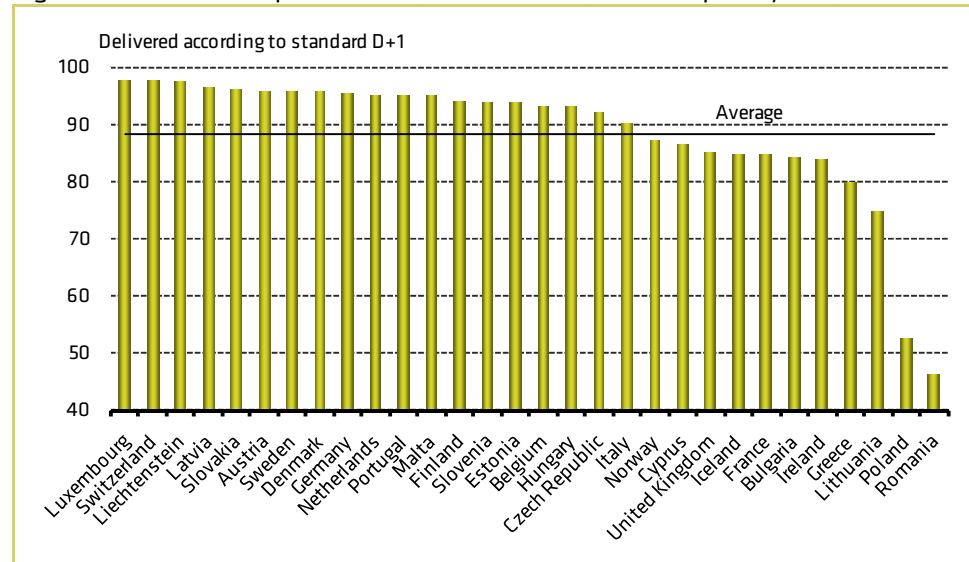
2.5. QUALITY OF SERVICE

Transit time performance – domestic priority mail

Transit time performance is a measure of the quality of universal services offered by a universal service provider. Transit time refers to a volume of mail that is delivered to the addressee within a specified benchmark. In the current study, we present both actual performance and performance as the deviation of actual performance vs. the target level set by legislation on the USO. The data on actual and target performance of the USP used in the diagrams below was provided by the NRAs of the respective countries.

In the case of domestic priority mail, the relevant performance benchmark is the “next day delivery” or the “D+1” target, which is set in terms of a percentage of the volume of items that must be delivered to the addressee by the next day. The most reliable delivery service was performed by Luxembourg with 97.7 percent on time. That was followed by Switzerland and Liechtenstein with figures of 97.7 and 97.3 percent respectively. The country which had the lowest amount of mail delivered as next day delivery was Romania with 46 percent on time deliveries vs. the target of 84 percent followed by Poland with 53 percent (target of 82 percent). These are followed by Lithuania and Greece with 75 and 80 percent respectively (also below target, cf. Figure 2.18). 6 other countries also had a relatively low delivery around 85 percent; Norway, Cyprus, United Kingdom, Iceland, France and Ireland, cf. Figure 2.17.

Figure 2.17 Transit time performance, D+1 standard*, domestic priority mail, 2009

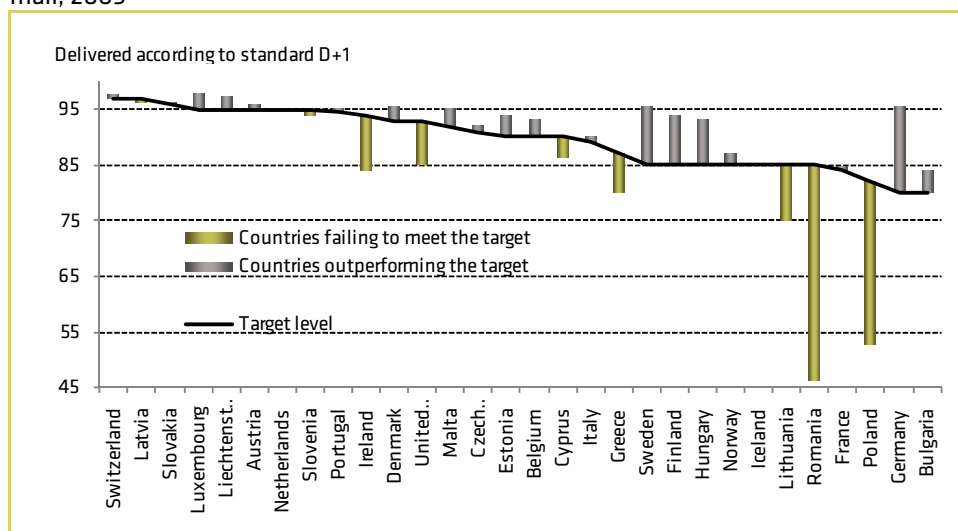


Note: *D+1 standard means standard of next day delivery. Spain does not have a defined D+1 standard. Germany and Bulgaria did not provide any input.

Source: Country fiche appendix, indicator x.10.1.

Figure 2.18 reports the performance vs. the target level of USPs in 27 countries. A positive deviation means that the performance target D+1 is exceeded by a given number of percentage points of total volume. A negative deviation means that a given number of percentage points of volume of domestic priority mail do not meet the target.

Figure 2.18 Transit time performance vs. target level, D+1 standard*, domestic priority mail, 2009



Note: A positive deviation means that the performance target D+1 is exceeded by a given number of percentage points of total volume. A negative deviation means that a given number of percentage points of volume of domestic priority mail do not meet the target. Spain does not have a defined D+1 standard.

*D+1 standard requires a specified percentage of volume of mail to be delivered to the addressee the next day.

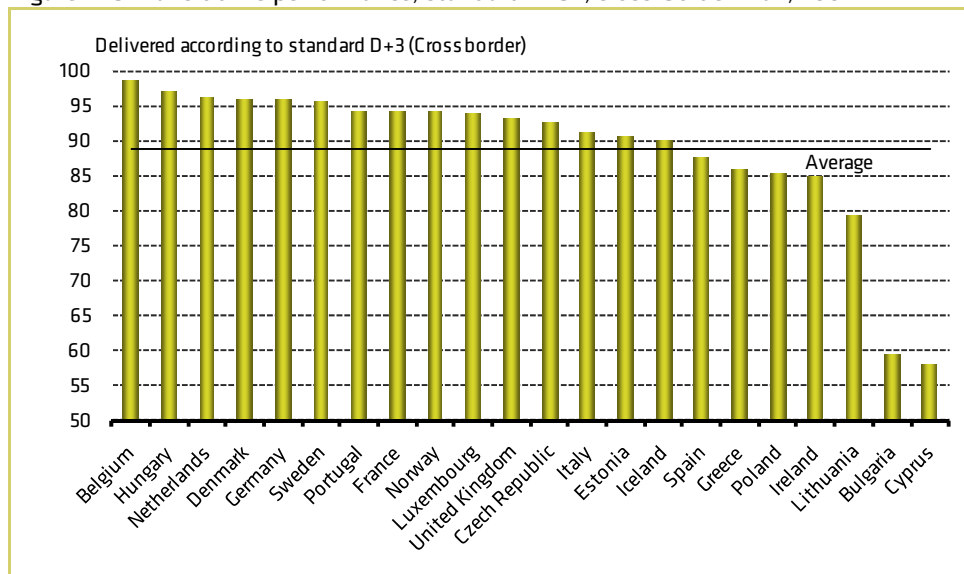
Source: Country fiche appendix, indicator x.10.1.

A number USPs deviate little from their target. The USPs performing best in relation to their targets are those in Finland, Hungary and Sweden, exceeding the target by almost 10 percentage points. The three USPs with worst performance in relation to the target are Poland, Lithuania and Ireland respectively, who failed to meet the target by 10-15 percentage points. Greece and Cyprus also severely failed to meet target by deviating around 5 percentage points.

Transit time performance – cross-border mail

We now turn to transit time performance in cross-border mail, measured at the D+3 standard – delivery after 3 business days. The country that delivers most mail on time is Belgium, with 98.7 percent delivered according to D+3 standard. 4 other countries also deliver on time around 96 percent of the time; these countries are the Netherlands, Denmark, Germany and Sweden. Bulgaria, Cyprus and Lithuania have the lowest rate of timely delivery with both Bulgaria and Cyprus having less than 60 percent of mail delivered on time. The other countries range between 85 percent and 95 percent.

Figure 2.19 Transit time performance, standard D+3*, cross-border mail, 2007



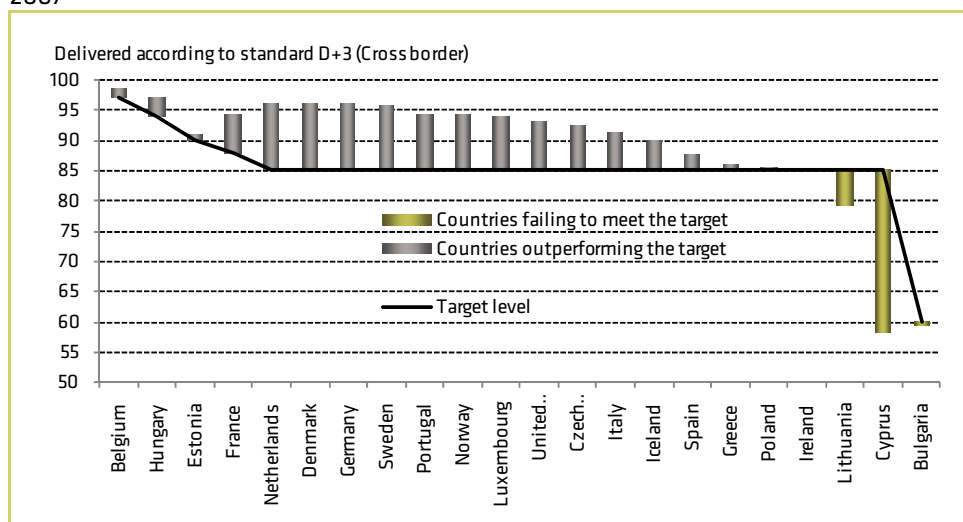
Note: *D+3 means delivery after 3 business days

Countries that did not respond: Austria, Finland, Latvia, Liechtenstein, Malta, Romania, Slovakia, Slovenia and Switzerland

Source: Country fiche appendix, indicator x.10.2 and Ecorys 2008(a)

In cross-border mail, according to the D+3 standard, most USPs outperform their target when measured in deviation of actual performance from target. Among the USPs which outperform the most are the Netherlands, Norway, Denmark and Germany. They all exceed their target level by more than 10 percentage points, cf. Figure 2.20. The USP in Cyprus is missing the target by more than 25 percentage points. Lithuania also fails to meet the target by more than 5 percentage points.

Figure 2.20 Transit time performance vs. target level, standard D+3, cross-border mail, 2007



Note: A positive deviation means that the performance target D+3 is exceeded by a given number of percentage points of total volume. A negative deviation means that a given number of percentage points of volume of domestic priority mail do not meet the target.

*D+3 means delivery after 3 business days

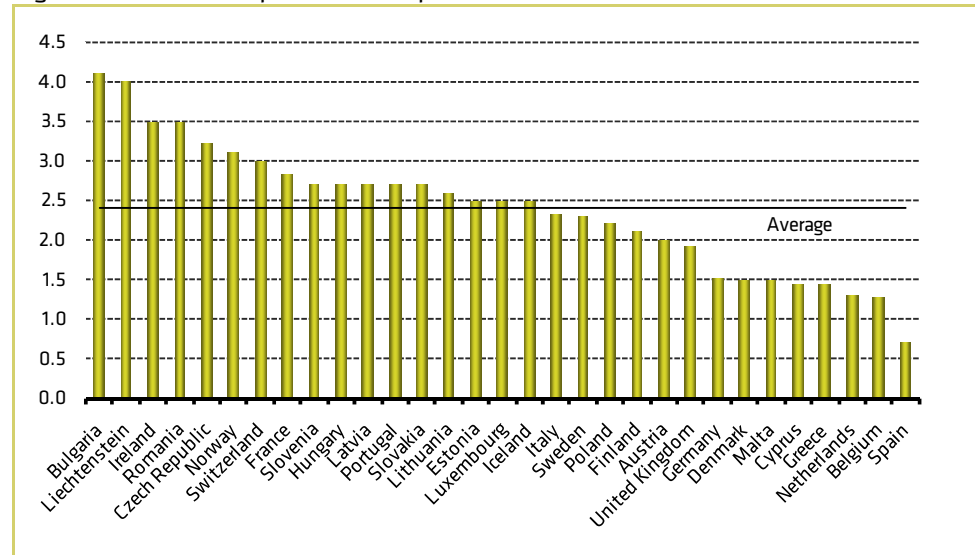
Source: Country fiche appendix, indicator x.10.2 and Ecorys 2008(a)

Other quality of service indicators

The number of postal outlets and mail boxes per inhabitant is a measure of the accessibility of postal services provided to the customers by the postal operator. Of the 31 countries which provided the data for 2009, we observe significant differences in terms of the number of outlets per 10.000 inhabitants (i.e. the density of outlets). Most of these differences can be explained by national legislation, which determines the desired level of accessibility to postal services. The higher the density of outlets, the more physically accessible postal services are, and the lower the amount of time the average citizen has to spend on posting mail and receiving parcels.

Figure 2.21 summarises the situation in 31 countries. The average number of postal outlets per 10.000 inhabitants in the 31 surveyed countries is 2.4. Although countries such as Bulgaria, Liechtenstein, Ireland or Romania have the highest density of outlets with 3.5-4 postal outlets per 10.000 inhabitants, it does not appear likely that the high density is due to the small geographical area of these countries. Other small countries such as Belgium, Cyprus, Denmark, Greece and the Netherlands have fewer than 1.5 outlets per 10.000 inhabitants. On the other hand, a large country like France ranks high with nearly 3 outlets per 10.000, although this is beyond the density in Finland, Sweden, and the UK.

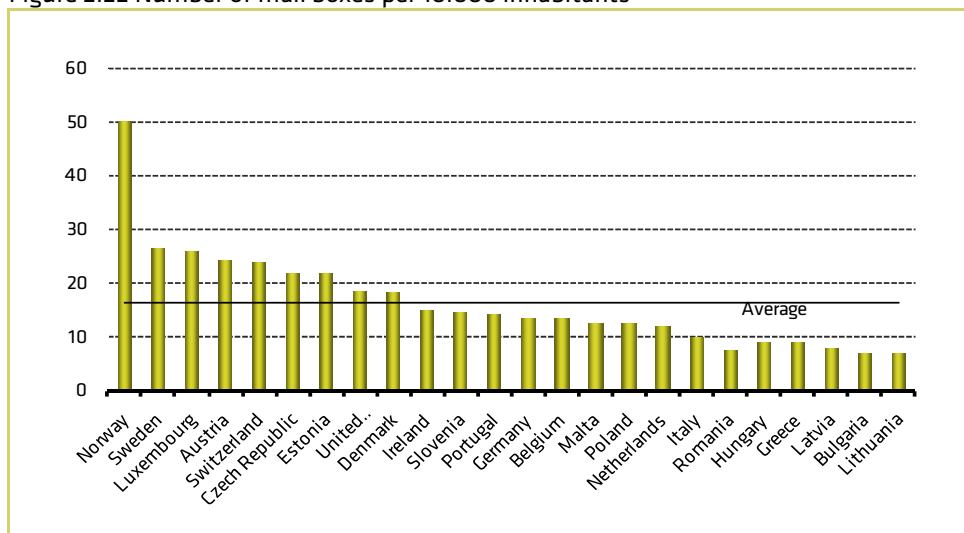
Figure 2.21 Number of postal outlets per 10.000 inhabitants



Source: Country fiche appendix, indicator x.10.3

Figure 2.22 reports the density of mail boxes per 10.000 inhabitants in the 24 reporting countries. The average level is 16.5 mail boxes per 10.000 inhabitants. Norway stands out with 50 mail boxes per 10.000 inhabitants, which can be explained by the will to ensure access to postal services in scarcely populated and difficult to access areas. In most countries, the density of mail boxes is much closer to the average, ranging from 7 to 26 mail boxes per 10.000 inhabitants.

Figure 2.22 Number of mail boxes per 10.000 inhabitants



Note: The following countries did not provide information; Cyprus, Finland, France, Slovakia, Spain, Iceland and Liechtenstein.

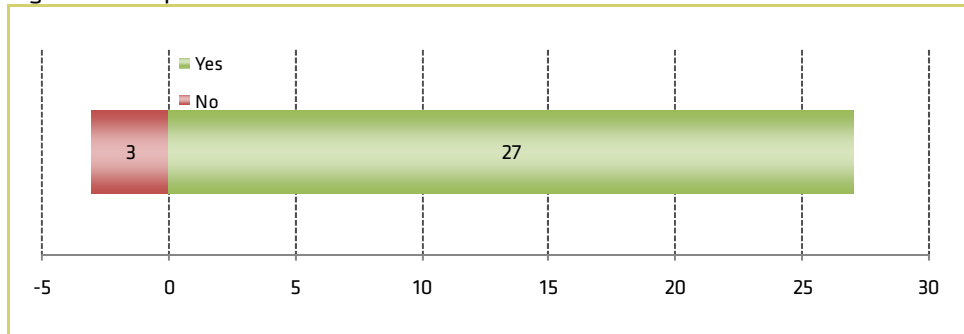
Source: Country fiche appendix, indicator x.10.3

As a final indicator of quality of service, we report the implementation status for the standards defined by the European Committee for Standardisation (CEN) in the postal sector. The relevant standards include:

- EN 14012 regarding the measurement of complaints and redress
- EN 13850 regarding transit time

Compared to the situation reported in WIK (2009), the CEN standard is as of 2009 implemented by 17 new countries, totalling 27, cf. Figure 2.23.

Figure 2.23 Implementation of CEN standards



Note: Countries that answered 'no': Estonia, Finland and Latvia. Country that did not answer: Luxembourg

Source: Country fiche appendix, indicator x.10.3

Chapter 3 REGULATORY DEVELOPMENTS

3.1. MAIN FINDINGS AND RECOMMENDATIONS

In this chapter we examine regulatory developments. The information regarding the role of the NRAs contained in this chapter reflects the *status quo* as of 2010 and does not take into account the draft postal laws under development in many Member States.

We draw five main conclusions:

Our first conclusion is that most Member States appear to be on target to meet the 31 December 2010 deadline for implementation of the Third Postal Directive. Seven Member States - Austria, Estonia, France, Germany¹⁴, the Netherlands, Slovenia and Sweden may be considered countries where the existing laws are, to a large extent, already harmonised with the provisions in the Postal Directive or where recent legislative acts have implemented the Third Postal Directive.¹⁵ Latvia and Bulgaria may be considered as having partially implemented the Directive as of Autumn 2010. In 2010, draft laws were prepared in Belgium, Bulgaria, Denmark, Finland, Spain and the UK. In certain cases, however, transposition appears to go against the spirit of the Postal Directive to ensure a functioning internal market in the postal sector.

Our second conclusion is that there is a particular need for strong NRA due to the extent of regulation present in the postal sector. With the exception of Italy, the countries covered in this study have established a NRA responsible for the postal sector. However, in some countries, the question of NRA independence appears challenged. Moreover, NRA may have too limited staffing and budgets, especially in the case of the new Member States (EU12) as compared to the old Member States (EU15). We recommend that all countries prioritise a strong and independent NRA.

Our third conclusion is that Member States appear to make frequent use of the power granted by Article 9(2) of the Postal Directive to require licenses to provide services within the scope of universal service. Although the role of licenses is to ensure that essential requirements are met, overly stringent licensing requirements may constitute a barrier to entry (discussed in chapter 4).

Our fourth conclusion states that it is a key concern that the NRA did not approve the cost accounting systems used by the USP in as many as 16 countries¹⁶. This may raise questions about NRAs ability to control costs in practice. In particular, we recommend that NRAs strengthen their oversight in the area of individually negotiated agreements and special tar-

¹⁴ Germany may be in compliance to a large extent, but did not formally adopt any new law/amendments explicitly referring to Directive 2008/6/EC.

¹⁵ This is based on the assessment of the respondents to the questionnaire. The application of the laws will not take place before January 1, 2011.

¹⁶ The countries are: Austria, Bulgaria, Cyprus, Denmark, Estonia, Finland, Germany, Greece, Latvia, Luxembourg, Netherlands, Poland, Portugal, Romania, Sweden and Iceland. No information is available for Liechtenstein.

iffs. We also recommend that the NRAs improve transparency, and publish the cost allocation system used by the USP. This does not currently happen in 23 countries.

Last but not least, we conclude that the regulation for consumer protection and remedies appears to have improved in comparison to the situation described in WIK (2009), since all countries now ensure user protection. Furthermore, a significant number of countries already extend user protection to users of all mail services, which is consistent with extension of the requirements brought about by the Third Postal Directive.

3.2. SECTOR OVERVIEW

The Postal Directive 2008/6/EC is the third consecutive Postal Directive which establishes the rules governing the internal market in the postal sector. The deadline for the implementation of the Third Postal Directive is December 31, 2010 for 16 Member States: Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Slovenia, Spain, Sweden and the UK. The laws in Austria, Estonia, France, the Netherlands, Sweden and Slovenia are adopted, while in Bulgaria and Latvia the laws are partially adopted. Germany envisions small amendments. As of October 2010, 6 out of the 16 countries with the deadline of end-2010 may be considered to have already aligned their national legislation to conform to a large extent with the requirements of the Directive¹⁷.

Eight countries have not yet completed the national harmonisation process, but expect to be ready before the 2011 deadline, cf. Table 3.1. Of these countries, Bulgaria, Denmark, Finland and Spain have a draft law ready which is undergoing consultations.

11 Member States have an extended deadline until 31 December 2012, including Cyprus, Czech Republic, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Romania and Slovakia. These countries are at different stages with respect to the harmonisation. These countries are not generally as advanced with the transposition effort as are countries with the earlier deadline.

¹⁷ The new legislation in these countries will take effect on January 1, 2011.

Table 3.1 Transposition of Directive 2008/6 as of 2010

Category	No.	Countries
EU Member States that transposed Directive 2008/6/EC as of 2010	8	Austria, Estonia, France, Germany* Netherlands, Slovenia, Sweden, UK*
EU Member States that are obliged to transpose the Directive 2008/6/EC before the 1.1.2011 deadline	8	Belgium**, Bulgaria***, Denmark***, Finland***, Italy, Portugal, Ireland, Spain***
EU Member States with an extended deadline of 31 December 2012	11	Cyprus, Czech Republic, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Romania, Slovakia
EEA countries****	3	Iceland, Liechtenstein, Norway
Switzerland	1	Switzerland is not required to transpose the Postal Directive as the country is not a member of the EEA. However, Switzerland plans to opening its market by April 2013*****

Note: * Formally not transposed but draft law is ready. Furthermore, the existing law already follows the spirit of the Directive to a considerable extent i.e. there is no reserved area.

** New law endorsed by the responsible Committee of the Chamber in November 2010.

***A draft law is undergoing legislative procedure as of July 2010.

****The process of transposition of the Third Postal Directive by EEA countries is subject to a specific procedure envisaged by the EEA agreement.

*****However, as a consequence of the decisions of the Nationalrat of 29/9/2010, the planned FMO is probably no longer valid.

Source: Country fiche appendix (Indicator 1.2.1)

Quality of transposition issues

Austria, Estonia, France, Germany, the Netherlands, Slovenia, Sweden and the UK can be considered to be countries where the existing laws are, to a large extent, already harmonised with the provisions in the Postal Directive or where specific implementing legislation has been adopted recently.¹⁸ However, the laws in many remaining countries may contain provisions that do not fully reflect the spirit of the Postal Directive with respect to the establishment of a well-functioning market for postal services.

In certain cases, the content of transposition appears to be a problem. This is the case when national laws contain provisions which go against the spirit of the Postal Directive to support conditions conducive to the accomplishment of an internal market in postal services. Below we present a non-exhaustive list specific issues were reported to us:

- Contributions to USO compensation fund beyond the allowed scope – Article 7(4);
- Stringent territorial coverage requirements – Articles 3(1), 3(2) and 4(2) in conjunction with Article 9(2);
- Restricted access to postal infrastructure.

¹⁸ This is based on the assessment of the respondents to the questionnaire, and includes, for example, the lack of reserved area and other issues which go against the spirit of the Directive, such as burdensome licensing requirements. It does not mean that these countries have already made a formal transposition of the Directive as of July 2010. Moreover, it does not mean that there are no problems of regulatory nature in these countries, e.g. market access in Austria.

Contributions to USO compensation fund

Article 7(4) gives Member States the right to establish a compensation fund in cases when universal service obligations are determined to represent an unfair financial burden for the USP. The Article states that:

(...) principles of transparency, non-discrimination and proportionality [are to be] respected in establishing the compensation fund and when fixing the level of the financial contributions.

The draft new law in Spain requires competitor operators to contribute to the USO fund,¹⁹ while USP is exempt from certain elements of the contribution (cf. Box 3.1). The law extends its designation as the universal service provider for a period of 15 years. Besides the industry contributions to the compensation fund and the length of the designation period, another main objection of private operators is the fact that the incumbent's deficit on USO is covered from state subsidies.

Box 3.1 Assessment of the magnitude of contributions to USO fund by a competitor in Spain

Article 29 of the draft Spanish Postal Law explains that the USO fund will be financed by 3 different means:

- By Postal Contribution (1.5 percent of the operating income with USO and applicable to all authorised and confirmed Postal Services providers (excluding Correos)
- By access fee regulated by the authorised Offices (excluding Correos)
- By a respective tariff surcharge of 2 percent applicable to all USO users (including Correos)

In the assessment of a competitor postal operator, UNIPOST, the above would translate to the following monetary amounts:

- The total postal contribution paid may be about 1.5M Euros/year (assuming no contributions by express transport companies)
- The access fee total could be considered as a small amount
- The tariff surcharge to all USO users is expected to be approximately €35 million

Source: UNIPOST

Stringent territorial coverage requirements

The Directive emphasises that access to universal services is available in the entire territory of a Member State. Articles 3(1), 3(2) and 4(2) refer to ensuring territorial coverage in terms of, respectively:

- Permanent provision of specified quality at all points in their territory;
- Density of the points of contact and of the access points shall take account of user needs;
- One or more operators have to provide universal services so that the whole of the national territory can be covered.²⁰

¹⁹ The Spanish Law in force in 2010 covers net USO costs by state subsidies. In the new draft law, USO costs are supposed to be covered by a compensation fund comprised by the contributions of alternative operators (competitors), users and the State.

²⁰ Note that according to Recital 23 of the Directive, "Where a Member State designates more than one undertaking, it should ensure that there is no overlap in the universal service obligations."

When transposing the above provisions for ensuring territorial coverage, several Member States have introduced specific requirements which are perceived as burdensome by competitors as they can *de facto* only be fulfilled by the incumbent operator in the short to medium term.

In Belgium, the draft law under consultation requires operators willing to provide services within the scope of universal service²¹ to ensure 80 percent coverage of the country's territory within a designated time limit of 5 years since the beginning of activities. In practice, this is considered problematic by competitor operators for the following reasons:

- It requires the very rapid creation of a network parallel to that of the USP, which entails large up-front investments;
- Covering 80 percent of the territory involves the coverage of rural areas which may not always be a part of the strategy of operators willing to concentrate on urban areas exclusively.

The current law in Finland requires geographic coverage of the country for licenses to be issued, including penalties for failing to meet the obligation to deliver universal service by the designated operator. Similar requirements exist in Estonia and Hungary.

In the assessment of a competitor operator in Finland, while the penalty is considered to be an obstacle to the development of further competition in services within the universal service area, it is not likely to be a very significant one.

Regulations concerning access to postal infrastructure

In Austria, access to letter boxes (in multi-storey buildings) throughout all parts of the country is not ensured, which prolongs the monopoly access of the national postal operator and creates a barrier for competitors.

In Finland, the NPO influences the geographic design of the postal code system in such a way that it bundles densely populated cities or towns with large unpopulated areas. This practice makes it difficult for competitor operators to follow business models designed at servicing densely populated areas only and *de facto* prohibits them from venturing into providing services within the USO area.

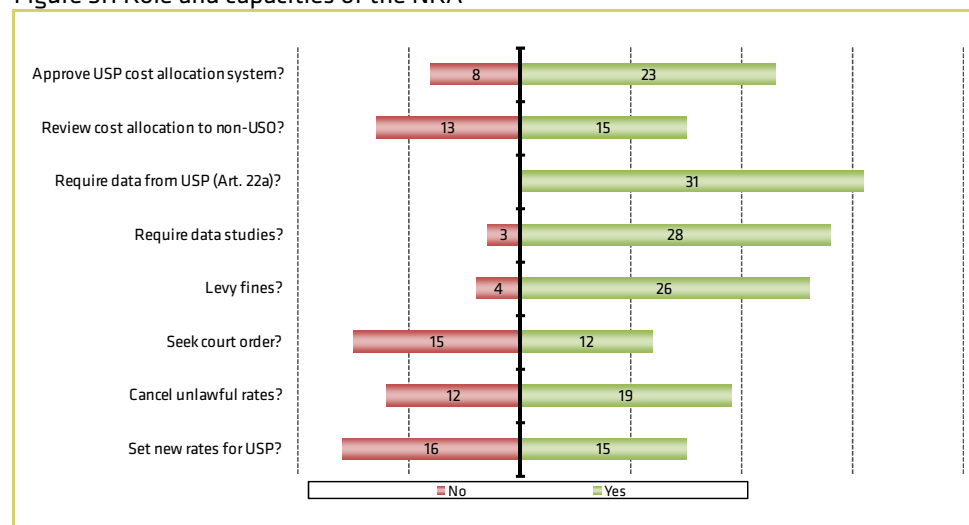
Chapter 4 discusses the main barriers to entry in more detail.

²¹ "The scope of universal service" is defined by Articles 3 (minimum requirements) and 4 (designation of the USP). "Universal services" (within "the scope of universal service") are the services provided by operators on the basis of authorisation procedures incl. individual licenses granted in accordance to Article 9(2) of the Directive.

3.3. ROLE AND CAPACITIES OF THE NRA

In this section we review the functions, tasks and powers of NRAs. We concentrate on the most important powers of the NRA with respect to regulating postal markets. Figure 3.1 and Table 3.2 summarises the role and capacities of the NRA as defined by national legislation.

Figure 3.1 Role and capacities of the NRA



Note: Number of countries where NRA has specific roles and capacities. See Table 3.3 for breakdown
Source: Country fiche appendix (Indicator x.4.1)

Table 3.2 Role and capacities of the NRA

Question	Yes	No	Unanswered
Approve USP cost allocation system?	AT, BE, BG, CY, CZ, DE, ES, FI, FR, EL, HU, IE, LV, LT, LU, MT, NO, PL, PT, SK, SI, SE, UK	CH, DK, EE, IS, IT, LI, NL, RO	
Review cost allocation to non-USO?	AT, BE, CY, DE, EE, ES, HU, IE, LU, MT, PL, PT, SK, SE, UK	BG, CH, CZ, DK, IS, IT, LI, LV, LT, NL, NO, RO, SI	FI, FR, EL
Require data from USP (Art. 22a)?	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK		
Require data studies?	AT, BE, BG, CH, CY, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LV, LT, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	CZ, LI, LU	
Levy fines?	AT, BE, BG, CY, CZ, DE, EE, ES, FR, EL, HU, IS, IT, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	DK, FI, IE, LI	CH
Seek court order?	BE, DE, ES, EL, IE, LI, LV, LT, MT, NL, RO, UK	AT, BG, CZ, DK, EE, FI, FR, HU, IS, LI, LU, NO, PT, SK, SI, SE	CH, CY, IT, PL
Cancel unlawful rates?	AT, BE, BG, CY, DE, EE, EL, IE, IS, IT, LI, LU, MT, PL, PT, RO, SK, SE, UK	CH, CZ, DK, ES, FI, FR, HU, LI, LV, LT, NL, NO, SI	
Set new rates for USP?	BG, CY, DE, ES, IS, IT, LV, LU, MT, NO, PL, RO, SK, SE, UK	AT, BE, CH, CZ, DK, EE, FI, FR, EL, HU, IE, LI, LT, NL, PT, SI	

Note: The answer for Austria is from July 2010.

Source: Country fiche appendix (Indicator x.4.1)

USP cost allocation system

Article 14(3) of the Directive gives all NRAs the power to approve the cost allocation system of the USP. In 2009, all NRAs had this power²² and most of them, with the exception of 5 EU countries, 2 EEA countries and Switzerland, have approved the cost allocation systems used by the USP. The EU countries are Denmark, Estonia, Italy, the Netherlands and Romania, while the EEA countries are Iceland and Liechtenstein.

The Third Postal Directive introduces a new Article 14(3)(b)(iv) which addresses the allocation of common costs between universal and non-universal services:

(iv) common costs, which are necessary for the provision of both universal services and non-universal services, shall be allocated appropriately; the same cost drivers must be applied to both universal services and non-universal services.;

Source: Directive 2008/6/EC, Article 14(3)(b)(iv)

Member States were expected to adapt “a reasonable approach towards the division of common costs between universal and non-universal services”²³ under the existing postal *acquis*. However, 13 NRAs do not review cost allocation from non-USO services, cf. Figure 3.1. These 13 countries were likely not to be able to comply with the requirements in Article 14(3)(b)(iv), as of the time of writing.

All 31 NRAs have the authority to require access to the data required to regulate the activities of “postal service providers” on the basis of the Article 22a added by the Third Postal

²² WIK (2009), p. 115.

²³ WIK (2009), p. 136.

Directive. Most recently, the Austrian NRA gained this power as compared to the situation described by WIK (2009).

All NRAs have the authority to compel the national postal operator to produce information to the level of detail required by the NRA, and with the exceptions of the Czech Republic, Liechtenstein and Luxembourg, they also have a power to compel the operator to develop new studies and data collection systems.

Almost all NRAs can levy fines for non-compliance with orders. However, the NRAs in Denmark, Finland, Ireland and Liechtenstein do not have such power. With the exception of Denmark, the situation is the same as reported by WIK (2009).

In addition to levying fines, 11 NRAs have the authority to seek court order to enforce their decisions. The countries are: Belgium, Greece, Ireland, Latvia, Lithuania, Malta, the Netherlands, Romania, Spain, United Kingdom and Liechtenstein.

19 NRAs have the authority to cancel unlawful rates in the context of their capability to monitor rates *ex-ante*, i.e. not allow the usage of rates proposed by the USP. The situation is the same as described in Ecorys (2008a).

15 countries have the power to set new rates for the USP. In comparison to the situation described in Ecorys 2008a²⁴, Cyprus and Sweden gained it, while the Czech Republic, Denmark and Slovenia lost it. 12 countries have the dual power to cancel unlawful rates and set new rates for the USP (the same as in Ecorys 2008a).

3.4. FORMAL STATUS OF NRA

In this section, we summarise the current formal status of NRAs with respect to their independence, resources and financing, and cooperation with national competition and consumer protection authorities.

Independence of the NRA

The independence of the regulator is crucial for the proper application of the Postal Directive. We find that not all European NRAs can be considered to have enough independence given what may be required to ensure well-functioning postal markets.

Article 22 stipulates that the regulator must be independent to ensure impartiality of decisions. The importance of independence is further emphasised by Commission Decision 2002/334/EC: which requires “*the tasks of economic and financial monitoring, on the one*

²⁴ Cf. Table 3.3 in Ecorys (2008a). NRA power to set new rates existed in Bulgaria, the Czech Republic, Germany, Denmark, Greece, Italy, Iceland, Luxembourg, Latvia, Malta, Norway, Poland, Romania, Slovakia, Slovenia, Spain and the UK.

hand, and of supervision of [the USP], on the other, are carried out completely independently one of the other.”²⁵

NRA tasks in Italy (and until July 2010 in Spain²⁶) are performed by the ministries responsible for the postal sector; therefore it may be considered that there is no independent NRA in these countries, in light of the understanding of Article 22. The government also appears to influence the NRA in the small countries including Cyprus, Liechtenstein and Malta.²⁷

In the remaining countries the degree of independence varies with respect to the possible involvement of the ministry responsible for the postal sector in respect to the budget and decision-making capabilities of the NRA, cf. Table 3.3 The budget of the NRA is sourced from the general government budget in 12 Member States. The budget must be approved by the ministry in the case of five countries. The government can guide NRAs on policy decisions in 11 Member States, and in the case of seven Member States some NRA decisions require governmental support. In the case of four countries, including Belgium, Denmark, Greece and Norway, the government can suspend NRA orders.

²⁵ EC LaPoste mail preparation case, cf. Crew et al. (2005), *Handbook of Worldwide Postal Reform*, p. 213.

²⁶ In Spain, the functions/competences granted to the NRA (Comisión Nacional del Sector Postal. CNSP) by Law 23/2007 have been performed on an interim basis by the Ministry of Transport and Public Works (Fomento), pending its effective entry into operation. The CNSP became operational in July 2010, being a public body enjoying full autonomy to exercise its functions in regulating the postal sector. The NRA part of our questionnaire was answered by Fomento.

²⁷ This conclusion is based on receiving a single or a consolidated answer to our questionnaire from the Ministry and the NRA.

Table 3.3 Independence of the NRA (1)

Country	Source of NRA budget:	Approval of budget by:	Can government guide NRA on policy?	Some NRA decisions require governmental support?	Can government suspend NRA orders?
Austria	Budget	Parliament	No	No	No
Belgium	Fees	Parliament	No	No	Yes
Bulgaria	Fees		No	No	No
Cyprus	Fees	Parliament	Yes	No	No
Czech Republic	Budget	Parliament	No	No	No
Denmark	Budget	Parliament	Yes	No	Yes
Estonia	Budget	Ministry	No	No	No
Finland	Fees	Parliament	Yes	No	No
France	Budget	Parliament	No	No	No
Germany	Budget	Parliament	Yes	No	No
Greece	Fees		No	Yes	Yes
Hungary	Fees	Parliament	No	No	No
Ireland	Fees	NRA	No	Yes	No
Italy*	Budget and fees	Parliament	Yes	Yes	
Latvia		Parliament	No	No	No
Lithuania	Fees	Parliament	No	No	No
Luxembourg	Budget		No	No	No
Malta	Budget and fees	Ministry	Yes	Yes	No
Netherlands	Fees	Ministry	No	No	No
Poland	Budget	Parliament	No	No	No
Portugal	Fees	Ministry	No	Yes	No
Romania	Fees	Parliament	No	No	No
Slovakia	Budget	Parliament	No	No	No
Slovenia	Fees	Government	No	No	No
Spain*	Budget	Parliament	Yes	Yes	
Sweden	Budget and fees	Ministry	Yes	No	
United Kingdom	Fees	Government	No	No	No
Iceland	Fees	Parliament	No	No	No
Liechtenstein	Budget	Parliament	Yes	Yes	
Norway	Fees	Parliament	Yes	No	Yes
Switzerland	Budget		Yes		

Note: *NRA activities are undertaken by the Ministry responsible for the postal sector in Italy

Source: Country fiche appendix (Indicator x.4.2 and x.4.3)

Another aspect of NRA independence concerns the delegation of authority to appoint and dismiss the NRA head. It is not conducive to NRA independence when the NRA head is appointed by a single ministry, particularly when it is the ministry responsible for the postal operator. The NRA head is appointed and dismissed by a single ministry in Austria (RTR), Denmark, Estonia, Ireland, Malta, the Netherlands, Norway and Switzerland, cf. Table 3.4. Arrangements ensuring the cooperation of multiple stakeholders when choosing the NRA are more conducive to its independence. Moreover, clear conditions for dismissal are conducive to NRA independence, while the possibility of dismissing the NRA head without a good reason is not. The latter may be the case in Malta, the Netherlands and Switzerland, Slovakia, Slovenia and Norway where no detailed conditions have been given for NRA head dismissal and the authority is vested into one institution (Ministry, Parliament).

Table 3.4 Independence of the NRA (2)

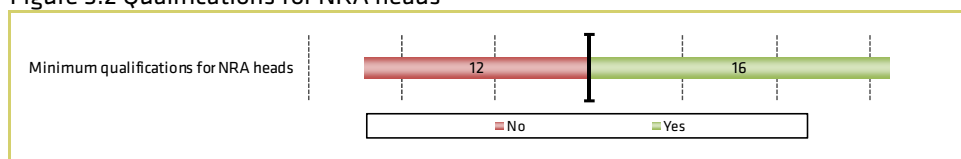
Country	Who, and under what conditions, can appoint NRA head?	Who, and under what conditions, can dismiss NRA head?
Austria	Post-Control-Kommission: Federal Government, RTR-GmbH: Federal Minister for Transport, Innovation and Technology	RTR-GmbH: Federal Minister for Transport, Innovation and Technology
Belgium	Government, proposed by minister	Government, proposed by minister
Bulgaria	The central government appoints the NRA head.	The central government
Cyprus	Council of Ministers	Council of Ministers
Czech Republic	Government	Government
Denmark	Ministry of Transport	Ministry of Transport
Estonia	Minister	Minister
Finland	Council of State	
France	The President	Nobody
Germany	Federal Government upon proposal of the Advisory Council	Upon request of the Ministry by the Federal Government for an important reason
Greece	Council of Ministers	Council of Ministers
Hungary	Prime Minister	Prime Minister, if the NRA head does not carry out his/her duty for chargeable reasons.
Ireland	Minister	Minister with due cause
Italy	Council of Minister or Prime Minister	Council of Minister or Prime Minister
Lithuania	The President	The President
Luxembourg	Grand Duke	Grand Duke
Malta	Minister	Minister, if he considers the NRA head to be "unfit" or has become "incapable of properly performing his duties".
Netherlands	Ministry of economic affairs	Minister of economic affairs. Conflicting interests, dysfunction. Based on OPTA-law
Poland	The Prime Minister at the request of the minister responsible for communications.	Under the following conditions: gross violation of the act, criminal offence committed, serious illness, resignation.
Portugal	Resolution of the Council of Ministers, upon proposal by the member of Government responsible for communications.	Resolution of the Council of Ministers and following an opinion issued by the ICP - ANACOM advisory council, in the following cases: Serious irregularities in the functioning of the body, considerable excesses in expenses over those stipulated in the budget.
Romania	The management of ANCOM is performed by one president and two vice-presidents, appointed by the President of Romania, upon the Government's proposal.	a) should it be impossible to fulfil the mandate for more than 120 consecutive calendar days out of a 140-day period; b) should there exist a criminal conviction delivered by final judgement, where rehabilitation did not take place; c) should there not be observed the 3-month term provided for remedying the incompatibility status regulated; d) by resignation; e) by death; f) upon expiry.
Slovakia	Parliament	Parliament
Slovenia	Government	Government (for failure to comply with legislation)
Spain	Appointed by the Government, on the proposal of the Minister of Transport and Public Works, following a hearing of the nominees before the appropriate Commission of the Congress (Parliament) which will focus on capacity and expertise.	Resignation accepted by the Government, end of the term, or separation decided by the Government, after instruction file by the Ministry of Development, in cases of permanent incapacity, serious breach of its obligations, conviction for wilful or incompatibility arising.
Sweden	Government	Government
United Kingdom	The Secretary of State for Business, Innovation & Skills. He is also the Chairman of the NRA and is appointed under the Commissioner for Public Appointments' Code of Practice for Ministerial Appointments to Public Bodies, August 2009.	The Secretary of State for Business, Innovation & Skills may dismiss the NRA head. Conditions for termination of appointment are if the NRA is abolished or otherwise ceases to be a body corporate. NRA head may be dismissed on grounds of incapacity, or misbehaviour
Norway	Ministry of Transport and Communications	Ministry of Transport and Communications, Misconduct
Switzerland	Ministry	Ministry without special conditions

Note: No information was provided for Latvia, Iceland, Liechtenstein

Source: Country fiche appendix (Indicator x.4.3)

Qualifications for NRA heads is conducive to independence and proper level of expertise required to perform NRA tasks. Minimum qualifications are required in only 16 countries, while 12 countries do not impose them, cf. Table 3.5 and Figure 3.2.

Figure 3.2 Qualifications for NRA heads



Note: Number of countries that have a legal requirement for NRA head, see Table 3.5 for breakdown.

Source: Country fiche appendix (Indicator x.4.3)

Table 3.5 Qualifications for NRA heads

	Yes	No	Unanswered
Minimum qualifications for NRA heads	AT, BE, BG, CH, CY, CZ, EE, FR, EL, HU, IE, LU, PL, PT, RO, SI	DE, DK, ES, IS, IT, LV, MT, NL, NO, SK, SE, UK	FI, LI, LT

Source: Country fiche appendix (Indicator x.4.3)

Human and financial resources

The budgets at the NRA disposal vary between countries. The variation in the total budgets reflects the differences in the size of the postal markets. Large markets tend to have higher budgets and employ more staff dealing with postal affairs. The budget per staff, however, appears to be more related to the GDP per capita. Countries of the EU12 have lower budgets per staff compared to the EU15, cf. Table 3.6.

Table 3.6 Human resources of NRA

Country	NRA staff dealing with postal services	Budget per staff member*(1.000 Euros)
Austria	3.9	154
Belgium	10	170
Bulgaria	10	21*
Cyprus	4	145*
Czech Republic	5	52*
Denmark	4.5	50
Estonia	2	34*
France	14	
Germany	35	
Greece	12	
Hungary	6	17
Iceland	2	40
Ireland	8	164
Italy	.	57*
Latvia	6	
Liechtenstein	.	
Lithuania	8	
Luxembourg	.	435
Malta	.	78
Netherlands	5	100
Norway	3	142
Poland	13	15
Portugal	20	145
Romania	30	23*
Slovakia	11	38
Slovenia	4	72*
Spain	39 (answered by the Ministry)	
Sweden	9	156
Switzerland	6.4	203
United Kingdom	63	171
Average	10	130

Note: * Where an estimate of separate postal budget is not available, the ratio is calculated as total NRA budget divided by total NRA staff

Source: Country fiche appendix (Indicator x.4.2)

Cooperation with national competition authorities

National competition authorities have an important role to play in postal sector reform as enforcers of competition rules in the postal sector, cf. Table 3.7. We find that more coordination may be required between the two institutions with respect to the sharing of information between them.

The NRA is the primary enforcer of competition rules only in two EU countries, Greece, and Luxembourg, while the NRA and the competition authority are equally involved in Estonia²⁸, Germany (where the NRA is in charge of postal sector competition law, while the competition authority is in charge of general competition law) and Slovenia. However, the lead role of competition authorities for competition cases in the postal sector does not automatically ensure that the NRA is obliged to share its information. In fact, as many as eight countries where the NCA is the primary enforcer of competition rules do not require the NRA to share information with this institution.

²⁸ In Estonia, the Estonian Competition Authority is the NRA.

Table 3.7 Cooperation with national competition authorities

Question	Answer	No. of countries	Countries
Who is the primary enforcer of competition rules?	NRA	3	EL, LU, PL
	NCA	24	AT, BE, BG, CH, CY, CZ, DK, ES, FI, LI, FR, HU, IE, IS, IT, LT, LV, MT, NL, NO, PT, RO, SE, SK, UK
	Both	3	DE, EE, SI
	Court	1	LI
NRA obliged to share info with NCA?	Yes	20	BE, BG, CY, DE, EE, EL, FR, HU, IE, IS, LI, LT, LV, MT, NL, NO, PL, PT, RO, SE, SI
	No	9	AT, CH, CZ, DK, FI, IT, LU, SE, UK

Source: Country fiche appendix (Indicator x.4.5)

Cooperation with consumer protection agencies

With respect to consumer protection, the NRA responsibilities regarding ensuring the quality of service may coincide with the mandates of National Consumer Protection Agencies and consumer associations to protect the interests of the general consumer. In Table 3.8, we gather evidence of NRA cooperation with these institutions. We find that the cooperation takes four forms:

- Informative actions targeted at consumers
- Public consultations e.g. on upcoming legislation
- Monitoring activities
- Possibility to refer cases to and from the consumer associations

Table 3.8 NRA cooperation with customer associations

Country	Example of cooperation
Cyprus	Informative; public consultations
Czech Republic	Association for protecting consumers, consultations
Denmark	Distribution of "free" newspapers
France	On the 31st of March 2008 ARCEP created a Consumer Committee dedicated to postal affairs. The objective is to discuss all user-related issues related to postal regulation to make sure that ARCEP exercises its powers in the best interest of the consumers. The Postal Consumer Committee meets twice a year focusing on definite subjects and topics of current relevance, e.g. the general terms of sale of La Poste, quality of universal service (transparency, establishment of quality indicators, handling of lost parcels and forwarding), accessibility to mailboxes in buildings, and sending small items at the letter tariff.
Germany	Possibility to refer cases to the consumer associations
Greece	Aim to provide information on a series of issues such as: The way complaints are handled by EETT and the official procedure to follow when filing a complaint, the jurisdiction of EETT over consumer issues; the leaflets and the regulatory documents that EETT has issued. The publication of comparative tables with the quality indicators of Electronic Communications services on the EETT website
Ireland	Consumer Advisory Panel, MOU with consumer bodies
Lithuania	NRA is the institution resolving disputes between the providers and users. There are consultations and change of information between consumer association and NRA.
Malta	Periodical meetings are held with the consumer association, though these have generally focused on issues related to electronic communications. The MCA when issuing consultations which relate to postal services and impact consumers does seek the views of this consumer association.
Netherlands	Consumer authority, Association of large postal customers
Portugal	The approval of the legal framework of postal services Quality / Price Conventions is preceded by the hearing of the consumers association.
Romania	NRA is answering at every customer claim received on its address. Also, the NRA starts a public consultation procedure when needed.
United Kingdom	NRA employee seconded to Consumer Focus 1 day per week, NRA director holds monthly meetings with Consumer Focus.
Liechtenstein	The Office of Trade and Transport has an information service center regarding consumer protection

Source: Country fiche appendix (Indicator x.4.5)

3.5. NRA ACTIVITY SINCE 2007

Court orders sought and fines levied

Since 2007, the NRA exhibited a relatively modest amount of activity with respect to its formal powers regarding levying fines and seeking court orders. No countries sought a court order. Four countries levied fines, including Cyprus, Estonia, Germany and Slovenia, cf. Table 3.9.²⁹

²⁹ The UKs NRA recently investigated the possibility of fining Royal Mail for trying to manipulate delivery performance figures but it eventually decided that "actual quality of service figures had not been affected in any material way, Royal Mail had not benefited financially from the conduct investigated, and that there was no adverse impact on Royal Mail's customers", cf. also: <http://postandparcel.info/34557/regulation/postcomm-spares-royal-mail-fine/>

Table 3.9 NRA activity since 2007

NRA activity	No. of countries	Countries
Court orders	0	N/A
No court orders	24	AT, BE, BG, CH, CY, CZ, DE, DK, EE, LI, FR, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK, UK
Fines levied	4	CY, DE, EE, SI
No fines levied	23	AT, BE, BG, CH, CZ, DK, LI, FR, IS, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SK, UK

Source: Country fiche appendix (Indicator x.4.1)

Discussions between the NRA and USP

NRAs are involved in numerous discussions with the USPs. A number of the topics raised are sparked by the implementation and application of the Postal Directive and the required adjustments in the regulatory area. We asked the NRAs and USPs about the main issues raised between them and we received information from 24 countries. The main issues of discussion concerned:

- Pricing including special tariffs and individual agreements ;
- Cost allocation issues and price control;
- Scope of universal services and its funding, including developments in postal networks;
- Quality of service results;
- Transposition and application of the Postal Directive, postal strategy and liberalisation.

In Austria, discussions concerned two issues. The first topic related to special tariffs and individual agreements as well as general terms and conditions. The second topic regarded the developments in postal infrastructure, including the role of post offices as well as domestic multi-mailbox installations (Hausbriefachanlagen).

In Greece the main points under discussion were possible preferential treatment with respect to a courier company which is a subsidiary of the USP. In addition to that, the new cost accounting system of the USP was scrutinised with respect to its implementation of the cost-accounting principles. A public consultation was launched on licensing, and a discussion took place regarding access to letter boxes and deviations from the normal frequency of delivery.

In Hungary the main points under discussion concerned the interpretation of the postal legislation and consideration of initiatives to modify it. Other topics were linked to the market monitoring responsibility of the NRA, including continuous negotiations concerning the improvement of quality of service and data provision of Magyar Posta with respect to network parameters, territorial availability, cost and revenues, volumes, employment.

The Maltese government issued a consultation on amendments required to the existing Postal legislative framework. The USP made its submissions to both the Government and the NRA. The discussion between the NRA and USP centred on the particular amendments to existing postal services legislation, including:

- Obligations related to the provision of universal service, including D+1 quality of service measurement and monitoring of standards (dealing with mis-delivery and lost mail), as well as other aspects of quality of service and consumer complaints handling, monitoring of mail integrity and related incidents.
- Tariff rebalancing in preparation for full market opening, including the pricing of USO products.
- Correct implementation of postal service schemes and their review.

The Netherlands discussed cost allocation in context of cost-oriented tariffs. According to the USP, the NRA refuses to set the starting tariffs for the USO as of 1 October 2009. The NRA wants more information on the accounting of the costs.

In Romania, the discussion concerned quality of services and the correct application of the 13850 standard, special tariffs and the associated conditions, as well as competition issues associated with newspaper and magazine distribution.

In Slovakia, a comprehensive discussion concerned the regulation of the postal sector, particularly supervision over USO and setting general rules for providing postal services that are not subject to USO.

In Switzerland, in addition to the standard issues with regard to quality control of universal services, revision of basic principles of cost accounting, handling of complaints concerning regulatory law of universal service, a discussion took place regarding cross-subsidisation. The gradual market opening was evaluated and price degrees were prepared for the attention of the federal department.

In the remaining countries standard periodic discussions took place. We summarise the main points of concern for the NRAs below:

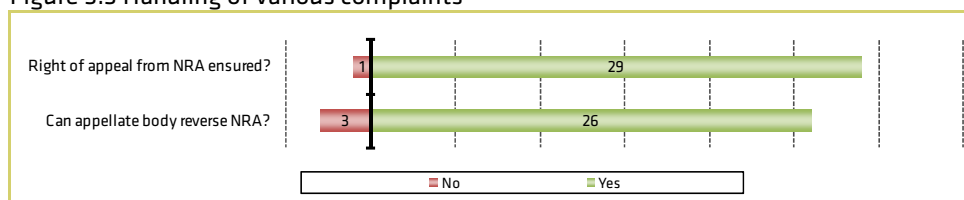
- Transparency, non-discrimination and cost-orientation of prices for bulk mailers, professional clients and intermediaries (Belgium);
- Costing issues and regulatory changes, low quality measurement results (Cyprus);
- Developments in postal networks (Estonia);
- Scope of universal services focusing on the allocation principles of the minimum cost of universal services (Finland);
- Quality of service measurement and monitoring, and affordability developments in relation to the sending of small items, tariff regulation and cost accounting, the definition of universal services and compliance with US obligations (France);
- Scope of universal service, pricing of reserved services, delivery in rural areas (Iceland);
- Quality of service developments and financial results reconciliation (Ireland);
- USO funding, the National Service Agreement, and the transposition of the Postal Directive 2008/6/EC (Italy);
- Tariffs calculation and developments in the quality of services (Latvia);

- Postal strategy till 2015, transposition of Directive, USO supervision, market supervision, and economic sanctions (Lithuania);
- Location of mailboxes (Norway);
- Price control systems and the methodology for calculation of net costs (Poland);
- Price regulation rules and quality standards were discussed (Portugal);
- Liberalization, USO prices, quality of service, access to postal network/infrastructure (Slovenia);
- Prices, cost calculation, access to postal services, access to postal infrastructure, delivery of mail (Sweden);
- New regulatory framework post 2011 and 2012 including scope of price control, universal service obligation, cost transparency and nature of access regime (UK).

Complaint handling

The last area of NRA activity we examined concerned complaint handling activities undertaken by the NRA. In all countries except for Denmark, it is possible to appeal NRA decisions. In these countries it is also generally possible for the appellate body to reserve the decision of the NRA, with the exception of Austria, France and Ireland, cf. Figure 3.3 and Table 3.10.

Figure 3.3 Handling of various complaints



Note: Number of NRAs in countries that has the following complaint handling procedures, see Table 3.13 for a breakdown of answers

Source: Country fiche appendix (Indicator x.4.4)

Table 3.10 Right of appeal from NRA decisions

Question	Yes	No	Unanswered
Right of appeal from NRA ensured?	AT, BE, BG, CY, CZ, DE, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	DK	CH
Can appellate body reverse NRA?	BE, BG, CY, CZ, DE, EE, ES, FI, EL, HU, IS, IT, LV, LI, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	AT, FR, IE	CH, DK

Source: Country fiche appendix (Indicator x.4.4)

In the majority of countries, NRA decisions can be appealed to the Court. We find that between one and five NRA decisions have been reversed in 10 countries, including Austria, Belgium, Bulgaria, Cyprus, Finland, Liechtenstein, Luxembourg, Latvia, Poland, Romania, Sweden and Slovakia. In the case of the Czech Republic and Germany, the number of reversed decisions was larger, between 6 and 10, cf. Table 3.11.

Table 3.11 Complaint handling

Country	Answer	No. of countries	Countries
To whom is NRA decision appealed?	Court	25	AT, BE, BG, CY, CZ, DE, EE, EL, ES, FI, LI, FR, HU, IE, IT, LT, LV, NL, NO, PL, PT, RO, SE, SI, SK, UK
	Board of appeals	2	IS, MT
	Ministry	1	NO
Number of NRA decisions reversed?	0	12	AT, BE, BG, CY, DE, FI, LI, LU, LV, PL, RO, SE, SK
	1-5	10	EE, HU, IS, LT, MT, NL, NO, SI, UK
	6-10	1	CZ

Source: Country fiche appendix (Indicator x.4.4)

3.6. LICENSING AND AUTHORISATION

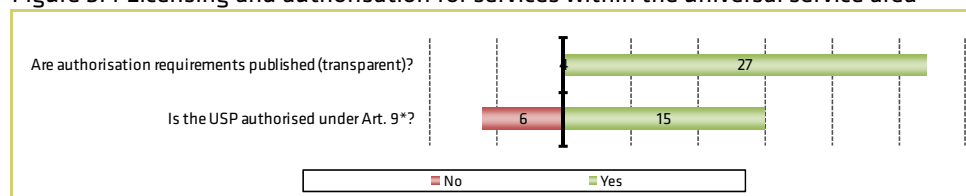
Article 9 of the Third Postal Directive gives the possibility for Member States to introduce special procedures for authorising postal operators. The procedures can be applied for operators willing to provide services within the universal service area as well as services outside the universal service area. Member States have the possibility to require:

- Individual licenses –require a specific approval before starting operations and may include specific rights and conditions to comply with
- General authorisations – do not require a specific approval before starting operations.

For services in the universal service area, general authorisations and individual licenses may be required for all or selected services. Article 9 also gives Member States the option to set up compensation funds to compensate the USP in cases when the provision of the USO results in a net cost.

15 countries chose the option to require authorisation from operators wishing to provide services within the scope of universal service by requiring individual licences or general authorisations as allowed by Article 9(2), cf. Figure 3.4. All of the 27 countries who answered the question regarding transparency of authorisation requirements claim that sufficient information is provided to applicants.

Figure 3.4 Licensing and authorisation for services within the universal service area



Note: The countries that follow the licensing procedures

Source: Country fiche appendix (Indicator x.2.6)

Authorisations for services within the universal service area

The scope of individual licenses and general authorisations varies among the countries that require them. Relatively few countries require licenses on all services within the universal service area: Belgium, Bulgaria, Cyprus, Greece, Malta and Slovenia. The remaining countries require a license only in the case of selected products, cf. Table 3.12. With respect to the countries requiring general authorisation, only Romania requires a licence for all universal services. Apart from that, the countries which require general authorisations require them for basic letter post, basic parcel post, periodicals and non-priority mail.

Table 3.12 Licensing and authorisation for services within the universal service area

Product	Services subject to:			
	Individual license	No. of countries	General authorisation	No. of countries
All US services	BE, BG, CY, EL, MT, SI	6	AT, FI, IE, RO	4
Letters up to 50g	AT, DE	2		0
Basic letter post	CH, DE, EE, ES, HU, IT, PL, PT, SK, UK	9	LI, LV, NL, SK	4
Basic parcel post	EE, ES, PL, PT, UK	5	DE, LU	2
Correspondence	DE, FR, IS	3		0
Outgoing cross border	CH, FR	2	DE	1
Direct mail	DE, HU, IT, UK	4		0
Periodicals	HU, IT, PT	3	DE, LI, LV, NL	4
Non-priority	EL, PL, UK	3	DE, LI	2
Reserved area	NO	1	DE	1
Addressed items	SE	1	DE	1
Bulk letters	ES, HU, IT, UK	4	DE	1
Bulk parcel	CH, HU	2	DE	1

Note: Czech Republic, Denmark and Lithuania require no individual license nor general authorisation for universal services.

Source: Country fiche appendix (Indicator x.2.9).

Non-universal services

Services outside the universal service area tend to be more frequently subject to general authorisation as opposed to individual licensing. 13 countries require general authorisations on all services outside the universal service area, while a few countries require general authorisations for individual services. Greece requires a general authorisation on the delivery of unaddressed items, cf. Table 3.13.³⁰

Only three countries require individual licenses for selected individual products outside the universal service area. Denmark requires a license for express services. Germany requires a license for the delivery of letters and unaddressed items. The UK requires a licence required for sending a letter weighing under 350 grams and costing less than £1, and is subject to certain other exceptions.

³⁰ The requirement of a general authorisation for unaddressed items appears to be not harmonised with Article 2 of the Directive, which does define unaddressed items as "mail items".

Table 3.13 Licensing and authorisation for non-universal services

Product	General authorisation required		Individual license required	
	No.	Country	No.	Country
All non-universal services	13	AT, BE, CY, DK, IE, IT, LU, MT, PL, PT, RO, SI, SK		
Express services	5	EE, EL, HU, LV, LT	1	DK
Periodicals	1	EE		
Direct mail	1	EE		
Letters	1	EL	2,	DE, UK*
Unaddressed items	1	EL	1	DE
Correspondence	1	LT	1	FR

Note: Nine countries require neither general authorisation nor individual licenses for any non-universal services: The Czech Republic, Finland, the Netherlands, Sweden, United Kingdom, Liechtenstein, Norway and Switzerland.

Bulgaria did not require licenses for any of the above described services but required individual license for money transfers. Spain and Iceland did not provide any answers.

**UK: Requirement is set out in Postal Services Act 2000*

Source: Country fiche appendix (Indicator x.2.9)

3.7. PRICE CONTROL AND ACCOUNTING REQUIREMENTS

The Third Postal Directive, Article 12, requires that prices of universal services are “*cost oriented*”, “*transparent and non-discriminatory*” and “*affordable*”. The authority for the control of these provisions is vested with the NRAs.

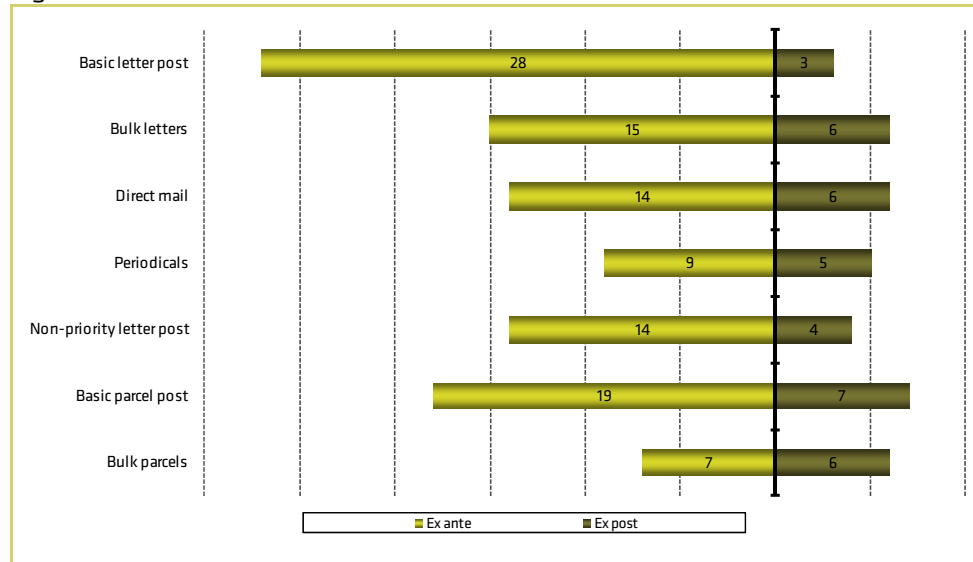
Price control methods

Basic letter and parcel post are the most important USO products where price regulation may be necessary to ensure that the objectives of the Directive are met. All 31 countries control prices of basic letter post. For that purpose, 27 countries use an ex-ante regulation, meaning that the USP must obtain the approval of the NRA before each price change. Three countries, including Denmark, Finland, and Latvia use ex-post approval. This means that the NRAs in these countries rely on investigations on prices already in effect. 21 NRAs control the prices of bulk letters.

Prices of basic parcel post are regulated in 27 countries. NRAs in Denmark, Luxembourg, Portugal, Iceland and Switzerland did not provide an answer regarding the regulation of basic parcel post. 18 countries reported the use of an ex-ante method, while seven countries reported the use of ex-post methods. Czech Republic reported the use of both. 13 NRAs control the prices of bulk parcels.

For the remaining products, the most frequently regulated are: Direct mail (20 NRAs), non-priority letter post (17 NRAs) and periodicals (13 NRAs), cf. Figure 3.5 and Table 3.14.

Figure 3.5 Price control methods



Note: Number of countries where price control methods apply ex-ante or ex-post. See a detailed breakdown in Table 3.14.

Countries applying simultaneously the ex-ante and ex-post methods are counted twice.

Source: Country fiche appendix (Indicator x.3.1)

Table 3.14 Price control method of services - breakdown by country

	Ex-ante	Ex-post	Unanswered
Basic letter post	AT, BE, BG, CH, CY, CZ, DE, EE, ES, FR, EL, HU, IE, IS, IT, LI, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	CZ, DK, FI, LV	
Bulk letters	BE, CH, CY, ES, FR, EL, HU, IE, IS, IT, MT, NO, RO, SK, UK	AT, DE, FI, LV, LT, SE	BG, CZ, DK, EE, LI, LU, NL, PL, PT, SI
Direct mail	BE, CH, CY, FR, EL, HU, IE, IT, MT, NO, PT, RO, SK, UK	AT, DE, LV, LT, SI, SE	BG, CZ, DK, EE, ES, FI, IS, LI, LU, NL, PL
Periodicals	CH, CY, EL, IT, MT, NO, PT, RO, SI	AT, DE, HU, LV, SE	BE, BG, CZ, DK, EE, ES, FI, FR, IE, IS, LI, LT, LU, NL, PL, SK, UK
Non-priority letter post	BE, BG, CH, CY, EE, FR, EL, HU, LT, NO, PL, RO, SK, UK	DE, FI, LV, SE	AT, CZ, DK, ES, IE, IS, IT, LI, LU, MT, NL, PT, SI
Basic parcel post	BE, BG, CY, CZ, EE, ES, FR, EL, IT, LI, LT, MT, NL, NO, PL, RO, SK, SI, UK	AT, CZ, DE, FI, HU, IE, LV, SE	CH, DK, IS, LU, PT
Bulk parcels	CY, ES, EL, MT, PT, SK, UK	AT, DE, HU, LT, SI, SE	BE, BG, CH, CZ, DK, EE, FI, FR, IE, IS, IT, LI, LV, LU, NL, NO, PL, RO
Basic letter post	AT, BE, BG, CH, CY, CZ, DE, EE, ES, FR, EL, HU, IE, IS, IT, LI, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	CZ, DK, FI, LV	

Source: Country fiche appendix (Indicator x.3.1)

Cost accounting systems of the incumbent

Ensuring that prices remain “cost-oriented” requires access to cost information. The USPs are required to implement cost accounting systems that can provide the information required for the control of cost allocation. The two main methods for the control of cost allocation include:

- FAC – fully allocated cost method (also referred to as “fully distributed costs”, FDC);
- LRIC – long run incremental costs method.

The FAC method distributes all costs among the USP's various products and services. As a result, the FAC may allocate costs not directly associated with a particular product or service, because it contains full allocation of common variable and fixed costs.

The LRIC method calculates the product-specific costs associated with the total volume of output of the relevant product, i.e. the difference between the total costs incurred by the operator when producing all products, including the individual product under analysis, and the (hypothetical) total costs of the operator when the output of the individual product is set equal to zero, holding the output of all other products fixed by an operator.³¹

The FAC method is the most commonly used cost-accounting method employed by USPs, and also the most widely approved method by NRAs, cf. Table 3.15. 24 USPs use the FAC method and its use is approved in 17 countries. The LRIC method is used and approved in Denmark and Germany only.

Table 3.15 Cost accounting systems of the USP

Type of cost accounting system	Is the cost accounting system approved by the NRA?		
	Yes	No	N/A
FAC	BE, CH, CZ, EL, ES, FI, FR, HU, IE, IT, MT, NL, NO, PT, RO, SI, SK, UK	IS	AT, BG, LT, LV, SE
LRIC	DK		
LRIC / FAC	LU		
Other	DE		EE

Note: Liechtenstein did not provide any answer

Source: Country fiche appendix (Indicator x.3.3).

Separation of accounts and application of tariff principles

In addition to the requirement for providing cost data, ensuring "cost-orientation" and the lack of cross-subsidies further requires that USP provides data at the right level of detail. In practice, this means that USP accounts are to be set up in a way that allows for the collection of required data. In particular, Article 14 of the Postal Directive requires the following:

- A separation between universal and non-universal services;
- A separation of reserved and non-reserved services (to be abolished with the Third Postal Directive);
- A separation for the individual services within the reserved area.

In order for the NRA to be able to review cost allocation for each universal service in practice, the USP should maintain separate accounts for each universal service in compliance with Article 14.

³¹ The LRIC is considered to be the most effective cost standard to stimulate efficient competition and market entry and mimic an efficient market.

We find that the current system of accounts operated by USPs was approved by only 14 NRAs. NRAs in as many as 15 countries did not approve USP accounts as of 2010. Thirteen USPs possessed more than 1 account for reserved area products, while 5 USPs, including The Czech Republic, Iceland, Latvia, Malta and Switzerland, operated only one account for the reserved area. Germany and the UK have no reserved area – hence no reserved product accounts. The majority of 23 NRAs require the USP to maintain separate accounts for the unreserved area products. In those countries where this is the case, most USPs maintain more than 5 separate accounts.

Table 3.16 Separation of accounts (1)

Question	Answer	No. of countries	Countries
Did NRA approve product accounts?	Yes	15	BE, CH, CZ, ES, FI, FR, HU, IE, IT, LT, MT, NO, SI, SK, UK
	No	14	AT, BG, CY, DK, EE, EL, IS, LU, LV, NL, PL, PT, RO, SE
No. of reserved product accounts	None	1	UK, DE
	1	5	CH, CZ, IS, LV, MT
	More than 1	13	BE, ES, FR, HU, IE, IT, LT, LU, NO, PT, RO, SI, SK
Unreserved product accounts required?	Yes	23	BG, CH, CY, CZ, EE, ES, FI, LI, HU, IE, IS, IT, LT, LU, LV, MT, NO, PT, RO, SE, SI, SK, UK
	No	7	AT, BE, DK, EL, FR, NL, PL
No. of unreserved product accounts	0	0	
	1-2	1	CH
	2-5	2	HU, MT
	More than 5	14	BE, CZ, ES, FR, IE, IT, LT, LU, NO, PT, RO, SI, SK, UK

Note: Germany is a special case – German NRA proceeds to an indirect control of accounts when controlling the cost documents provided for rates approval

Source: Country fiche appendix (Indicator x.3.2)

Recital 29 of the Third Postal Directive contains a specific set of requirements towards individual agreements and special tariffs negotiated by the USPs with business clients. The standard Directive provisions regarding cost-orientation and non-discrimination are also valid for these tariffs. However, the special tariffs should fulfil an additional requirement that they account for the costs which are avoided in comparison to the supply of standard services. NRAs are responsible for ensuring this, which implies the need to access to the required information from the USP.

The identification of avoided costs in the case of special tariffs is likely to be facilitated when a distinction of downstream accounts is available. NRAs require such a distinction in only five countries, including Cyprus, France, Greece, Ireland, and Switzerland. 17 NRAs do not require the separation. However, the USP in the UK provides it regardless, cf. Table 3.17.

Table 3.17 Separation of accounts (2)

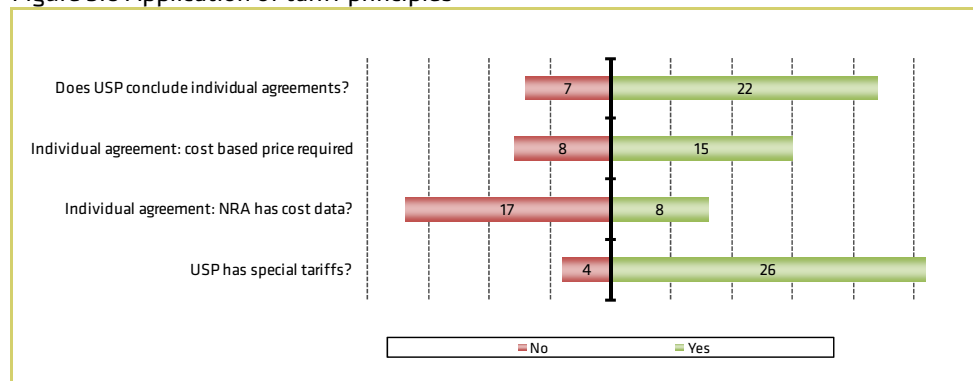
Question	Answer	No. of countries	Countries
Downstream accounts?	Yes	5	CH, CY, EL, FR, IE
	No	17	AT, BE, BG, DK, EE, ES, FI, HU, IS, LU, NL, NO, PL, RO, SE, SI, UK
No. of downstream accounts	0-5	0	(no answers received)
	More than 5	3	FR, IE, UK

Note: Germany is a special case - Bundesnetzagentur proceeds to an indirect control of accounts when controlling the cost documents provided for rates approval. 8 countries did not provide any answer to this question: The Czech Republic, Italy, Latvia, Liechtenstein, Lithuania, Malta, Portugal and Slovenia

Source: Country fiche appendix (Indicator x.3.2)

Error! Reference source not found. summarises the application of tariff principles by USPs and the control functions of the NRA. Most USPs offer special tariffs (26) and 22 of them conclude individual agreements, the seven exemptions being Cyprus, The Czech Republic, Ireland, Italy, Latvia, Malta and Norway. 14 NRAs require that the individual agreements are concluded with cost-based prices (implying the maintenance of a separate cost account by the USP). However, in eight countries where the USP concludes individual agreements, the NRA does not require cost-based prices: Bulgaria, Greece, Hungary, Iceland, the Netherlands, Slovenia, Spain, Spain and the UK. In seven countries out of the 14 where the NRA requires cost-based individual agreements, the NRA reports that it does not have access to such cost data: Austria, Denmark, Estonia, Finland, Liechtenstein, Norway and Switzerland. For a detailed breakdown of the answers see Table 3.18.

Figure 3.6 Application of tariff principles



Note: Number of countries that apply the listed tariff principle. See Table 3.18 for a country breakdown.

Source: Country fiche appendix (Indicator x.3.2)

Table 3.18 Application of tariff principles

	Yes	No	Unanswered
Does USP conclude individual agreements?	AT, BE, BG, CH, DE, EE, ES, FI, FR, EL, HU, IS, LI, LT, LU, NL, PL, RO, SK, SI, SE, UK	CY, CZ, IE, IT, LV, MT, NO	DK, PT
Individual agreement: cost based price required?	AT, BE, CH, DE, DK, EE, FI, LI, LT, LU, NO, PT, RO, SK, SE	BG, , ES, EL, HU, IS, NL, SI, UK	CY, CZ, FR, IE, IT, LV, MT, PL
Individual agreement: NRA has cost data?	BE, EL, IS, LT, PT, RO, SK, SE	AT, BG, CH, CY, DE, DK, EE, ES, FI, FR, HU, LI, NL, NO, PL, SI, UK	CZ, IE, IT, LV, LU, MT
USP has special tariffs?	AT, BE, BG, CH, CY, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, LT, LU, NL, NO, PL, PT, RO, SK, SI, SE, UK	CZ, IT, LV, MT	LI

Source: Country fiche appendix (Indicator x.3.2)

Transparency

The Postal Directive requires transparency of accounts regulation. This is to be ensured by a competent body which is independent of the USP and result in the publication of a statement of compliance. Table 3.19 summarises the performance of the countries in the current study with respect to the transparency requirement. 22 countries report fulfilment of the requirement for independent body reviews, while four countries report non-compliance and five countries did not provide information. However, the countries do not seem to comply with the requirement to publish a compliance statement periodically. Only four countries do so.

Table 3.19 Transparency

	Answer	No. of countries	Countries
Independent body reviews USP accounts?	Yes	22	AT, BE, CH, CZ, DE*, DK, EE, ES, FR, EL, IE, IT, LT, LV, MT, NO, PL, PT, RO, SE, SI, SK
	No	4	FI, LI, HU, IS
Last review of USP accounts	2007	6	AT, DE*, DK, ES, NL, PT, SK
	2008	12	BE, CZ, FR, HU, IE, IT, LV, MT, NO, PL, SE, SI
	2009	4	CH, DK, LT, RO
	2010	0	
Publish compliance report?	Yes	5	BE, EE, FR, LV, NO
	No	23	AT, CH, CY, CZ, DE, EL, ES, HU, IE, IS, IT, LT, LU, MT, NL, PL, PT, RO, SE, SI, SK, UK

Note: * There is no designated USP in Germany (USP generated by market forces). Bulgaria did not provide any information on transparency.

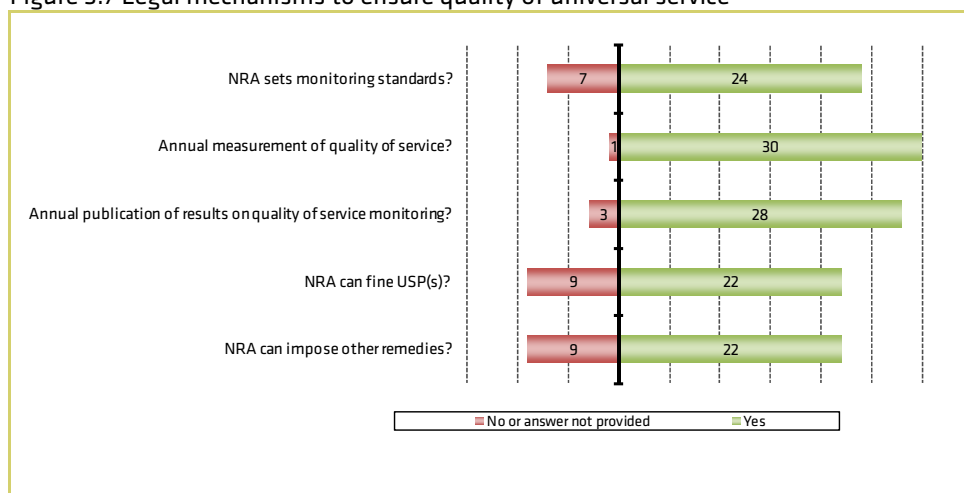
Source: Country fiche appendix (Indicator x.3.2)

3.8. QUALITY OF SERVICE MONITORING AND USER PROTECTION

Articles 16 and 17 of the Postal Directive set the standard for quality of service monitoring. Most NRAs set quality monitoring standards, although 7 NRAs, including Estonia, Finland, France, Greece, Italy, Lithuania and the Netherlands do not do so, cf. Figure 3.7. Despite this, most NRAs (with the exception of Latvia), conduct annual measurement of quality of service and publish them. The NRAs which do so without having set quality standards may not meet the standards defined in the Directive. In 20 countries, the NRA has the authority to fine the USP for failing to meet quality standards and in 21 countries the NRAs can im-

pose other remedies upon the USP. The NRA does not have any coercive powers in the case of only two countries: Denmark and Liechtenstein. Table 3.20 is a country breakdown of how the legal mechanisms apply to ensure quality of universal service.

Figure 3.7 Legal mechanisms to ensure quality of universal service



Note: Number of countries where legal mechanisms apply. See Table 3.20 for a country breakdown.

Source: Country fiche appendix (Indicator x.2.6)

Article 19 of the Postal Directive requires “transparent, simple and inexpensive” procedures for user protection, in particular relating to user complaints and non-compliance with quality standards. The Third Postal Directive expanded the scope of external consumer protection³² by requiring that external protection is provided as a minimum for services within the scope of universal service.

Table 3.20 Legal mechanisms to ensure quality of universal service – by countries

	Yes	No
NRA sets monitoring standards?	AT, BE, BG, CH, CY, CZ, DE, DK, ES, HU, IE, IS, LI, LV, LU, MT, NO, PL, PT, RO, SK, SI, SE, UK	EE, FI, FR, EL, IT, LT, NL
Annual measurement of quality of service?	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	LV,
Annual publication of results on quality of service monitoring?	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LT, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	LI, LV, LU
NRA can fine USP(s)?	AT, BE, BG, CY, CZ, DE, EE, ES, FI, FR, HU, IT, LV, LT, MT, NL, NO, RO, SK, SI, SE, UK	CH, DK, EL, IE, IS, LI, LU, PL, PT
NRA can impose other remedies?	BE, CH, DE, EE, FI, FR, EL, HU, IE, IS, LV, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	AT, BG, CY, CZ, DK, ES, IT, LI, LT

Source: Country fiche appendix (Indicator x.2.6)

Table 3.21 summarises the current state of user protection regulations in the countries covered by the study. The main differences in relation to the situation described in the WIK (2009) study are that the Netherlands and Romania implemented mechanisms to ensure

³² “External consumer protection” means the assistance offered by institutions independent of the postal operator.

user protection. Most Member States extend user protection to non-USPs in the universal service area as well as for operators in non-universal service areas, which is consistent with the spirit of the Third Directive to protect all users of mail services.³³

Table 3.21 Regulation of user protection procedures and remedies

Question	Answer	No. of countries	Country
User protection procedures in postal or consumer law?	Postal law	10	AT, BE, CZ, DE, LT, LV, NL, NO, PL, RO
	Both	18	BG, CY, DK, EE, EL, ES, FI, FR, HU, IE, IS, IT, MT, PT, SE, SI, SK, UK
	Neither	1	LU
	No answer	2	CH, LI
Enforcement by NRA or national consumer protection authority?	NRA	12	AT, BE, CZ, DK, ES, LT, LV, NL, NO, PL, RO, SI
	NCPA	1	FI
	Both	14	BG, CY, EE, EL, FR, HU, IE, IS, IT, MT, PT, SE, SK, UK
	Court	1	DE
	Neither	1	LU
No answer		2	CH, LI
Applies to non-USP(s) in USO area?	Yes	25	AT, BE, BG, CY, CZ, DE, EE, EL, ES, FI, LI, FR, HU, IE, IT, LT, LV, MT, NL, PT, RO, SE, SI, SK, UK
	No	3	DK, IS, NO
	No answer	3	CH, LI, PL
Applies to non-USO services	Yes	27	AT, BE, BG, CY, CZ, DE, EE, EL, ES, FI, LI, FR, HU, IE, IS, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK
	No	3	DK, IT, NO
	No answer	1	CH
USP(s) required to issue annual report	Yes	26	AT, BG, CY, CZ, DK, EE, EL, FI, LI, FR, HU, IE, IT, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK, UK
	No	3	BE, DE, IS
	No answer	2	CH, ES
NRA issues annual report	Yes	19	AT, BE, BG, CY, CZ, DE, EL, FR, HU, IE, LT, LV, MT, NL, PL, PT, RO, SI, SK
	No	10	DK, EE, FI, LI, IS, IT, LU, NO, SE, UK
	No answer	2	CH, ES
Review of operator decision ensured	Yes	28	BE, BG, CH, CY, CZ, DE, EE, EL, ES, FI, LI, FR, HU, IE, IS, IT, LT, LU, LV, MT, NO, PL, PT, RO, SE, SI, SK, UK
	No	3	AT, DK, NL
	No answer	0	
Agency reviewing operator	NRA	13	CZ, DE, EE, EL, HU, IS, LT, LU, LV, NO, PT, SI, SK
	Other	13	BE, BG, CY, ES, FI, LI, FR, IE, IT, MT, PL, SE, UK
	No answer	5	AT, CH, DK, NL, RO

Note: NCPA = National Consumer Protection Agency.

Source: Country fiche appendix (Indicator x.4.6)

³³ Under the current regime all postal operators need to have established an internal complaints scheme.

Chapter 4 DEVELOPMENT OF COMPETITION

4.1. MAIN FINDINGS AND RECOMMENDATIONS

In this chapter we examine competition in the postal sector. We base our analysis in this chapter on the material from the country fiches (regulation, competition cases) as well as interviews with main competitors (regulatory entry barriers) and an interview with the French NRA (on the role of consolidators).

Our main conclusion is that competition in the postal sector remains challenged. National postal operators maintain dominance in a number of segments, a number of important entry barriers are outstanding and a number of competition issues are reported.

The possibilities for choice of postal operator have not increased markedly in recent years. National postal operators continue to play a dominant role in the traditional letter post segments. Competition is stronger outside the letter post segment, especially in express, parcels, and to a lesser extent in cross-border mail, direct mail and publications.

There is a tendency that actual competition will continue to take place in only parts of the markets, although the reserved area is expected to disappear by the end of 2010 in the largest EU markets. Though the markets will be fully open to competition, the lack of legal restrictions to competition does not mean that competition will be present. For example, although the markets of Estonia, Finland, Germany, Netherlands, Sweden and the United Kingdom all are fully liberalised legally, the actual competition level in these countries is low or has been undisclosed. Actual competition is sector-specific and differs between countries. In many segments or countries the actual level of competition today appears to be below what could theoretically be possible under the current market opening.

Our interviews with competitor postal operators and trade unions revealed significant entry barriers. Important barriers include the special VAT treatment of “public postal operators” and the lack of clarity regarding the latest EU case law in this area³⁴, the presence of the reserved area, certain specific provisions in employment regulations and regulation of financing of the USO coupled with a lack of approved methods for calculating its cost.

In the period of 2008-2010, we observed several competition cases mainly in the direct mail and unaddressed items segments, often referring to predatory pricing and rebate issues. Furthermore, important cases took place in the market for mail consolidation. There are, however, still uncertainties about how competition rules shall be applied in the postal sector in practice. We recommend that the Commission prioritises competition cases in the postal sector at EU level and issue more decisions, which in turn will establish clearer case law at the European courts. A key priority should be decisions showing how to assess rebates.

The existence of barriers identified by competitors is a strong signal that postal markets cannot yet be considered truly open to competition in all areas. We recommend that more care-

³⁴ TNT Post UK case ref. C-357/07.

ful consideration is given to likely competitive impacts of the barriers we identify, such as skewed sourcing decisions due to the VAT treatment of NPOs or the presence of strict requirements on the provision of USO. We also recommend that licensing requirements, if any, as introduced by Article 9 are verified for their compliance with (the spirit of) the postal *acquis* as identified in Article 2 and revised where necessary. Furthermore, we recommend that the processes for applying for licenses are streamlined so that they do not constitute an entry barrier.

4.2. SECTOR OVERVIEW

The Third Postal Directive introduces important changes from the point of view of competition:

- It eliminates the reserved area and provides the possibility for using market forces to provide universal service. Alternative means are designation and public procurement;
- It introduces provisions on the allocation of common cost between USO and non-USO products, cf. Article 14(b)(iv);
- It adds a sufficient legal basis for the collection of data (Article 22a);
- It gives the basis for a better consumer protection (expanded Article 19);
- It fixes a cost orientation principle of prices and non discrimination of prices between users and operators.

In order to evaluate the state of competition in the postal sector, it is therefore worthwhile examining whether there are differences between countries where the Third Postal Directive is already in effect and countries that have not yet implemented it. We find that since September 1, 2010, only four countries - Estonia, Germany the Netherlands and Sweden - can be considered countries where the Postal Directive is in effect³⁵ (in addition to the UK which has not formally transposed the Postal Directive, has no reserved area and the laws appear to follow the spirit of the Postal Directive), cf. Table 4.1, cf. also Section 3.1). Competition, measured by the market share occupied by competitor operators, exists in three of the four, namely Germany and the Netherlands and Sweden. The Postal Directive cannot be considered to be in effect in the remaining countries – their level of competition is also low.

³⁵ This does not, however, mean that these countries have already found the perfect legal and market solutions in all regards.

Table 4.1 Transposition of Directive 2008/6 as of 2010 vs. state of competition

Directive in effect as of 2010?	Competitor operators with greater than 10% share of total market	Competitor operators with lower than 10% share of total market
Yes	Germany* Netherlands, Sweden	Estonia, UK****
No	Czech Republic, Poland	Austria, Belgium, Bulgaria, Cyprus, Denmark**, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Norway, Portugal, Romania, Slovakia, Slovenia***, Spain, UK

Note: The current presence of reserved area is marked in green.

*Although Germany must still implement some minimal amendments to formally transpose the Postal Directive, the Postal Act is in our view already in line with all major requirements of the Directive.

**Denmark has a draft law of the Postal Directive, and it will be transposed before 1.1.2011.

***Slovenia has transposed the Postal Directive in 2009 but reserved area will continue until 31.12.2010.

****The UK has not formally transposed the Postal Directive but there is no reserved area and the laws appear to follow the spirit of the Postal Directive.

Switzerland is not required to transpose the Postal Directive as the country is not a member of the EEA.

Source: Country fiche appendix

4.3. REGULATION OF ACCESS TO POSTAL INFRASTRUCTURE

To protect the interests of users and ensure effective competition, Article 11a of the Third Postal Directive requires transparent and nondiscriminatory access to the postal infrastructure where necessary.

The most frequently regulated elements of infrastructure are the postcode database, PO boxes and access to the downstream distribution network³⁶ of the national postal operator, cf. Figure 4.1. The three elements are all important for ensuring downstream access for competitors whose models rely on access to NPO network e.g. for delivery in remote areas.

Address and change of address databases are also relatively frequently regulated elements of access. Where such databases exist, competitors typically consider access to them to be valuable.

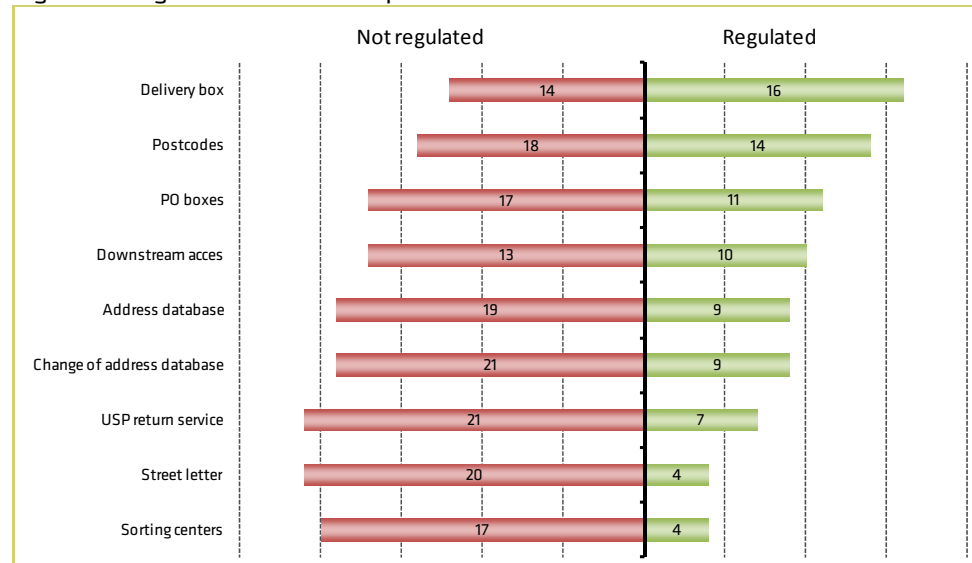
Furthermore, competitors providing hybrid mail and virtual delivery services may consider it valuable to have access to NPO's database of client email addresses although these elements are not defined in Article 11a of the Directive. Clients who receive most of their hybrid mail from the NPO may have a strong incentive to ensure that the NPO has up-to-date access to their email address but only a weaker incentive to ensure that competitors are informed of the change of email. However this element of access does not appear to be currently regulated by any country covered in the study, and it may be debatable to what extent it is an element of postal infrastructure.

The least frequently regulated elements of access are street letter boxes and sorting centres. Street letter boxes as collection points are typically used by individual clients and thus are

³⁶ Downstream access is not part of Article 11a. Granting of access to it by countries is, however, reflecting actual situation where competitors are seeking access to the delivery network.

seldom considered important for competitors concentrated on bulk mail. Likewise, regulated access to NPO sorting centres may not be important since competitors either use their own sorting centres or follow business models which do not require investments in expensive sorting centres altogether³⁷.

Figure 4.1 Regulation of access to postal infrastructure



Note: A country breakdown and a list of countries that did not answer is found in Table 4.2

Source: Country fiche appendix, indicator x.2.10

³⁷ E.g. Competitors providing virtual delivery ensure that mail is sorted at the stage of printing which eliminates the need for sorting of already printed mail.

Table 4.2 Application of tariff principles – country breakdown

	Yes	No	Unanswered
Delivery box	AT, BE, BG, DK, EE, ES, FR, DE, HU, LT, MT, PL, PT, SK, SE, UK	CH, CY, CZ, FI, EL, LI, LV, LU, NL, NO, RO, SI	IE, IS, IT
Postcodes	AT, BG, CY, CZ, EE, FR, EL, HU, LT, MT, NL, SI, SE, UK	BE, CH, DK, ES, FI, DE, LI, LV, LU, NO, PL, PT, RO, SK	IE, IS, IT
PO boxes	AT, EE, FR, DE, HU, LV, LT, MT, NL, SI, SE	BE, BG, CH, CY, CZ, DK, ES, FI, EL, LI, LU, NO, PL, PT, RO, SK, UK	IE, IS, IT
Downstream acces	BE, EE, DE, HU, LV, LT, MT, PT, SI, UK	BG, CH, CY, CZ, DK, ES, FI, FR, EL, LI, LU, NL, NO, PL, RO, SK, SE	AT, IE, IS, IT
Address database	AT, DK, EE, FR, LT, MT, SI, SE, UK	BE, BG, CH, CY, CZ, ES, FI, DE, EL, HU, LI, LV, LU, NL, NO, PL, PT, RO, SK	IE, IS, IT
Change of address database	AT, CY, EE, FR, DE, MT, NL, SI, SE	BE, BG, CH, CZ, DK, ES, FI, EL, HU, LI, LV, LT, LU, NO, PL, PT, RO, SK, UK	IE, IS, IT
USP return service	BG, EE, DE, LT, MT, NL, SI	AT, BE, CH, CY, CZ, DK, ES, FI, FR, EL, HU, LI, LV, LU, NO, PL, PT, RO, SK, SE, UK	IE, IS, IT
Street letter	DE, LV, LT, MT	AT, BE, CH, CY, CZ, DK, EE, ES, FI, FR, EL, HU, LI, LU, NL, PL, PT, SK, SI, SE, UK	BG, IE, IS, IT, NO, RO
Sorting centers	DE, LT, MT, UK	AT, BE, CH, CY, CZ, DK, EE, ES, FI, EL, HU, LI, LV, LU, NL, PL, PT, SK, SI, SE	BG, IE, IS, IT, NO, RO

Source: Country fiche appendix, indicator x.2.10

4.4. MARKET SHARE OPEN FOR COMPETITION

NPOs continue to hold significant market shares in different mail segments. NPO market shares correspond to the level of competition in the segment. The stronger the NPO market share, the lower the competition and *vice versa*. In 2009, the presence of a reserved area continued to be an important force shaping competition in the addressed items delivery market.

The degree of market share open for competition differs between the segments of the postal markets, and also among Member States.

The business survey carried out as a part of this study³⁸ showed that mailers in the survey spend on average only 16 percent of their total budget used for postal services on competitor operators.

Market share of the NPO in the main market segments

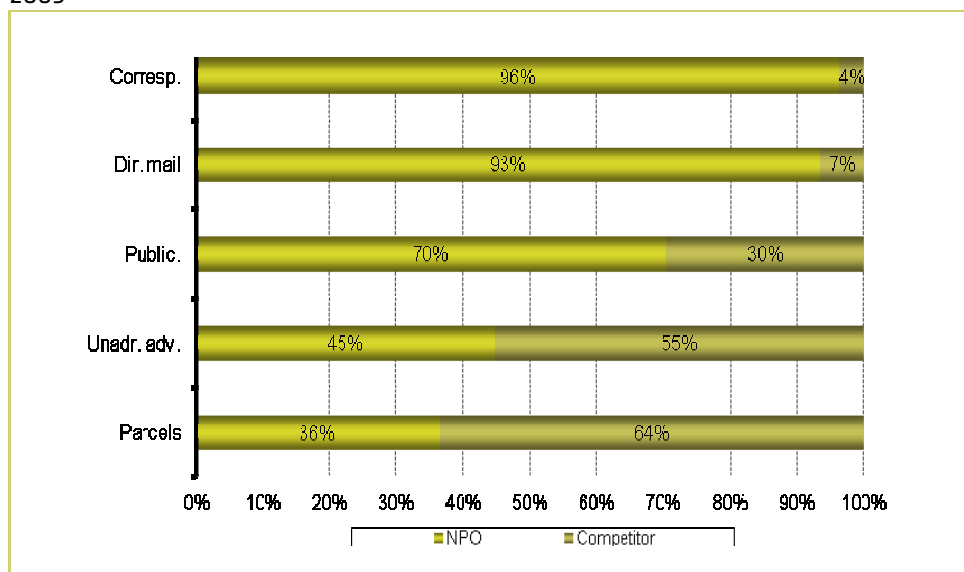
Looking at the situation of NPOs in nine European markets (Germany, Hungary, Iceland, Luxembourg, the Netherlands, Portugal, Slovenia and Slovakia), we observe that they continue to hold dominance in correspondence and direct mail segments, cf. Figure 4.2³⁹. This is not surprising given the presence of the reserved area in 2009 and its overall importance in the addressed mail segment as well as the economies of scale and scope. The situation is a little different in the publications markets, where competitors' position is already established. The publications market is generally more competitive than correspondence and direct mail, although NPOs continue to hold an advantage in the form of their territorial coverage. The

³⁸ See Section 5.7 for a detailed description of the survey.

³⁹ Due to the small number of responses received to the question of NPO market shares our conclusions are illustrative in nature rather than representative of the entire European postal market. Please note, however, that we received responses from Northern, Western, Southern and Eastern regions of Europe, which strengthens the illustrative value of the data.

most competitive markets are unaddressed delivery and parcels, in both of which NPOs possess less than 50 percent of the market share. Historically, these are the markets where competition has been allowed for the longest period of time.

Figure 4.2 Approximate market shares of national postal operators and competitors, 2009



Note: Simple average, DE, HU, IS, LU, NL, PT, SI, SK are included

Source: Country fiche appendix, indicator x.6.1

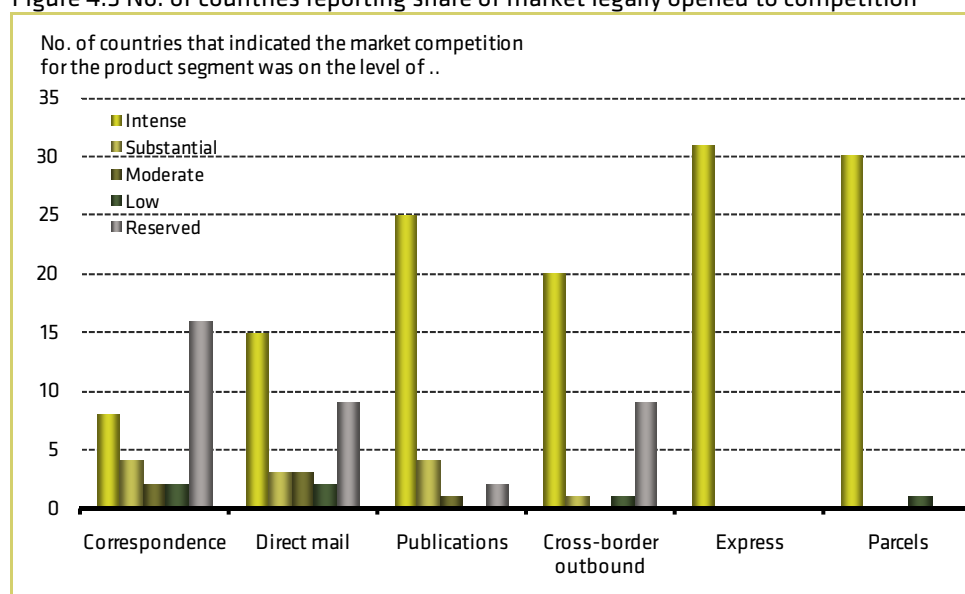
We asked countries to estimate the level of competition which is possible under their national law – and to compare it with the actual state of competition. On the one hand, addressed items segments remain relatively restricted by law, notably due to the significant incidence of the reserved areas in these countries. Therefore, the actual competition level in these markets is low around Europe. On the other hand, competition is more intense in the express and parcel delivery segments. Cross-border delivery is in-between the two groups of segments.

Addressed items segments, including correspondence, direct mail and publications generally remain the least opened markets by law. Of these three segments, the publications segment is the most open to competition. Few countries have laws allowing for a full scale level of competition, and the level of competition is generally low despite variation. In comparison to correspondence, direct mail and publications segments, the cross-border outbound mail segment is more open by law. However, out of the countries which provided data, intense competition is only observable in Lithuania.

Express and parcels are by far the most liberalised segments. For express, all the reporting countries have confirmed that the market is fully opened. For the parcels seg-

ment, the NRA from Cyprus indicated a low level of competition, in contrast to other NRAs considered the parcels as a segment with intense level of competition, cf. Figure 4.3 and Table 4.3.

Figure 4.3 No. of countries reporting share of market legally opened to competition



Note: The bars represent the number of countries which estimate that their national law permits a given level of competition (market opening):

- Low: competition is allowed by law in 0 – 10 percent of the market
- Moderate: competition is allowed by law in 11 – 30 percent of the market
- Substantial: competition is allowed by law in 31-60 percent of the market
- Intense: competition is allowed by law in 61-100 percent of the market
- Reserved: Means that competition is only open on 50+ g. Therefore the market is somewhat open.

For a country breakdown see Table 4.3.

Source: Country fiche appendix, indicator x.5.3

Table 4.3 Countries reporting share of market legally opened to competition

	Correspondence	Direct mail	Publications	Cross-border outbound	Express	Parcels
Low	CY, HU	CY, DK		CY		CY
Moderate	CH, FR	CH, FR, HU	CH			
Substantial	BE, ES, PT	BE, PT	BE, FR, PT	HU		
Intense	AT, DE, EE, FI, IE, NL, SE, UK	AT, BG, CZ, DE, EE, ES, FI, IE, IS, IT, NL, RO SI, SE, UK	AT, BG, CY, CZ, DE, DK, EE, ES, FI, HU, IE, IS, IT, LV, LT, LU, MT, NL, NO, PL, RO SK, SI, SE, UK	AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IS, LT, NL, NO, PT, RO SI, SE, UK	AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	AT, BE, BG, CH, CZ, DE, DK, EE, ES, FI, FR, EL, HU, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK
Reserved area	BG, CZ, DK, EL, IS, IT, LI, LV, LT, LU, MT, NO, PL, RO, SK, SI	BG, CZ, IS, IT, RO	EL, LI	BG, EL, IT, LI, LV, LU, MT, PL, SK		

Note:

- Low: competition is allowed by law in 0 – 10 percent of the market
- Moderate: competition is allowed by law in 11 – 30 percent of the market
- Substantial: competition is allowed by law in 31-60 percent of the market
- Intense: competition is allowed by law in 61-100 percent of the market
- Reserved: Means that competition is only open on 50+ g. Therefore the market is somewhat open.

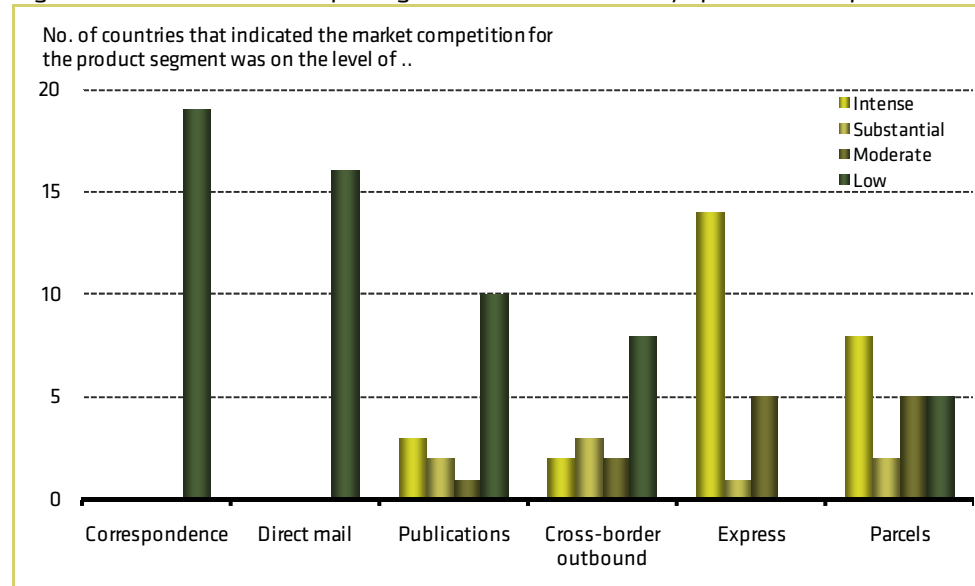
Source: Country fiche appendix, indicator x.5.3

The actual level of competition in the correspondence and direct mail segments to competition is virtually non-existent cf. Figure 4.4 and Table 4.4 . There is more competition in the publications segment, with Latvia, Lithuania and Luxembourg being the countries where actual competition is intense or substantial. Actual competition for cross-border outbound items takes place in France, Hungary, Lithuania and Switzerland and, to a lesser extent, Luxembourg and Portugal.

Although laws in Estonia, Finland, Germany, Netherlands, Sweden and the United Kingdom have introduced the necessary provisions to fully open in addressed items and cross border outbound mail, the actual competition in these countries is low or undisclosed.

The market for express postal items is (and has historically been) subject to the most open legal conditions. Therefore, it is not surprising that the actual competition level in this segment is intense in most countries. The parcels market faces roughly the same degree of legal market opening as express postal items, but the actual opening of these markets are more varied with more countries having a relatively low actual competition level.

Figure 4.4 No. of countries reporting share of market actually opened to competition



Note: The bars represent the number of countries which estimate that actual competition in a market segment is at the following level:

- Low: competition is allowed by law in 0 – 10 percent of the market
- Moderate: competition is allowed by law in 11 – 30 percent of the market
- Substantial: competition is allowed by law in 31-60 percent of the market
- Intense: competition is allowed by law in 61-100 percent of the market

Austria, The Czech Republic, Denmark, Finland, Italy, Norway, Poland, Spain, Sweden, United Kingdom did not supply information on actual level of competition

Source: Country fiche appendix, indicator x.5.1

Table 4.4 Countries reporting share of market actually opened to competition

	Correspondence	Direct mail	Publications	Cross-border outbound	Express	Parcels
Low	AT, BE, BG, CH, CY, DE, EE, FR, EL, HU, IE, LI, LU, MT, NL, PT, RO, SK, SI	AT, BE, CY, DE, EE, FR, EL, HU, IE, LI, MT, NL, PT, RO, SK, SI	BE, BG, DE, EL, HU, IE, LI, NL, PT, SI	BG, CY, EE, DE, EL, LI, MT, SK		BG, CY, EE, HU, MT
Moderate			FR	AT, LU, PT	DE, LI, PT, RO	CH, DE, LI, RO
Substantial			EE, SK	CH, FR, HU		SK
Intense			LV, LT, LU	LT	AT, BE, BG, CY, EE, FR, EL, HU, IE, LV, LT, LU, MT, SK, SI	AT, FR, EL, IE, LV, LT, LU, PT, SI
Unanswered	CZ, DK, ES, FI, IS, IT, LV, LT, NO, PL, SE, UK	BG, CH, CZ, DK, ES, FI, IS, IT, LV, LT, LU, NO, PL, SE, UK	AT, CH, CY, CZ, DK, ES, FI, IS, IT, MT, NO, PL, RO, SE, UK	BE, CZ, DK, ES, FI, IE, IS, IT, LV, NL, NO, PL, RO, SI, SE, UK	CH, CZ, DK, ES, FI, IS, IT, NL, NO, PL, SE, UK	BE, CZ, DK, ES, FI, IS, IT, NL, NO, PL, SE, UK

Note:

- Low: competition is at the level of 0 – 10 percent of the market
- Moderate: competition is at the level of 11 – 30 percent of the market
- Substantial: competition is at the level of 31-60 percent of the market
- Intense: competition is at the level of 61-100 percent of the market

Source: Country fiche appendix, indicator x.5.3

Number of competitors

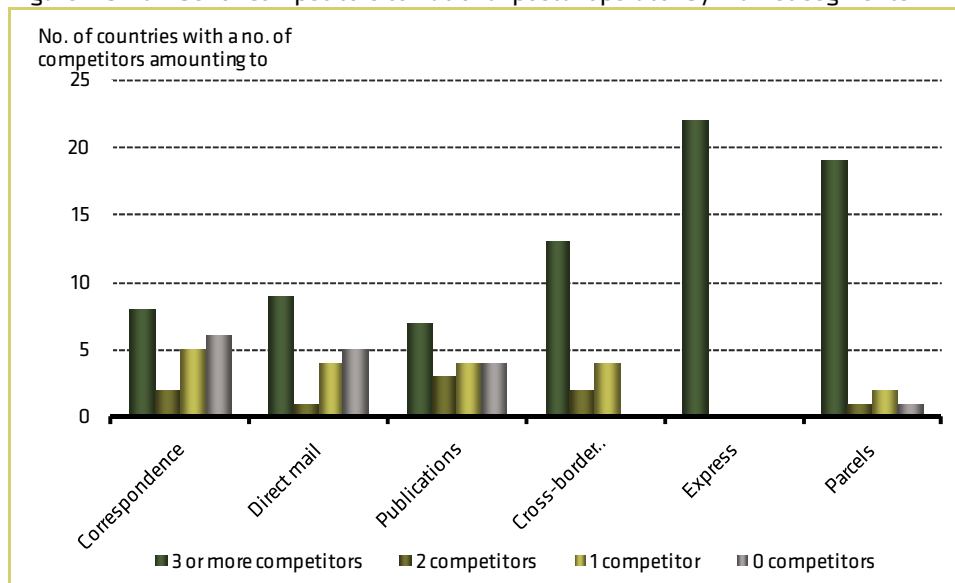
The choice of providers resembles the situation regarding market opening, as outlined above. The largest choice of alternative service providers exists in the express and parcel segments. There are fewer competitors in the remaining segments of the market, though a fairly good choice is available for cross-border mail. The choice of operators is the smallest in the correspondence, direct mail and publications segments.

In express and parcels, almost all countries have 3 or more competitors. Regarding parcels, only Estonia and Hungary have no or one competitor. Germany and the Netherlands have three or more competitors on all items. Slovenia has three or more competitors on express and parcels, while Estonia has three or more competitors on direct mail and express.

A fairly good choice of alternative of service providers exists in the delivery of cross-border mail. In 12 countries, customers can choose between the services of three or more providers in addition to the national postal operator. These countries are Lithuania, Portugal and Switzerland. In the remaining seven countries there is at least one alternative provider. Nevertheless, there are some countries with low numbers of competitors.

The level of choice in the correspondence, direct mail and publications segments is somewhat smaller than in cross-border outbound mail although it is nearly the same in all three sectors. There is at least one alternative provider in 14 countries in the direct mail and publications market and in 15 countries in the case of correspondence. In roughly half of these countries, customers can choose from among three or more alternative providers. Countries such as Lithuania, Portugal and Switzerland have most competitors. However, the number of competitors on correspondence, direct mail and publication is also relatively evenly distributed between “no competitors”, “one” and “two.” This is a further indication that the actual competition in these sectors has not picked up yet. There are still a relatively significant number of countries in which only the NPO is available. For correspondence, direct mail and publications this is the case in six, five and four countries respectively, cf. Figure 4.5 and Table 4.5.

Figure 4.5 Number of competitors to national postal operator by market segments



Note: For a country breakdown see Table 4.5

Source: Country fiche appendix, indicator x.5.3

Table 4.5 Number of competitors to national postal operator by market segments in respective countries

	Correspondence	Direct mail	Publications	Cross-border outbound	Express	Parcels
0	BE, CY, FR*, HU, IE, SI	BE, FR, HU, IE, SI	BE, HU, IE, SI			HU
1	DK, EL, IT, MT, SE	EL, IT, MT, SE	EL, IT, LU, SE	EE, EL, IT, LV		EE, PL
2	CZ, EE	CZ	CZ, EE, SK	IE, SE		SE
3+	CH, DE, LV, LT, LU, NL, PL, PT	CH, DE, EE, LV, LT, LU, NL, PL, PT	CH, LV, LT, NL, NO, PL, PT	BE, CH, CZ, DE, FR, HU, LT, LU, NL, NO, PL, PT, SK	AT, BE, BG, CY, CZ, DE, EE, FR, EL, HU, IE, IT, LV, LT, LU, MT, NL, PL, PT, SK, SI, UK	AT, BE, CH, CZ, DE, FR, EL, IE, IT, LV, LT, LU, NL, NO, PT, RO, SK, SI, UK
Unanswered	AT, BG, ES, FI, IS, LI, NO, RO, SK, UK	AT, BG, CY, DK, ES, FI, IS, LI, NO, RO, SK, UK	AT, BG, CY, DE, DK, ES, FI, FR, IS, LI, MT, RO, UK	AT, BG, CY, DK, ES, FI, IS, LI, MT, RO, SI, UK	CH, DK, ES, FI, IS, LI, NO, RO, SE	BG, CY, DK, ES, FI, LI, IS, MT

Note:

* In France the competition comes from local operators. There is no national competitor to La Poste.

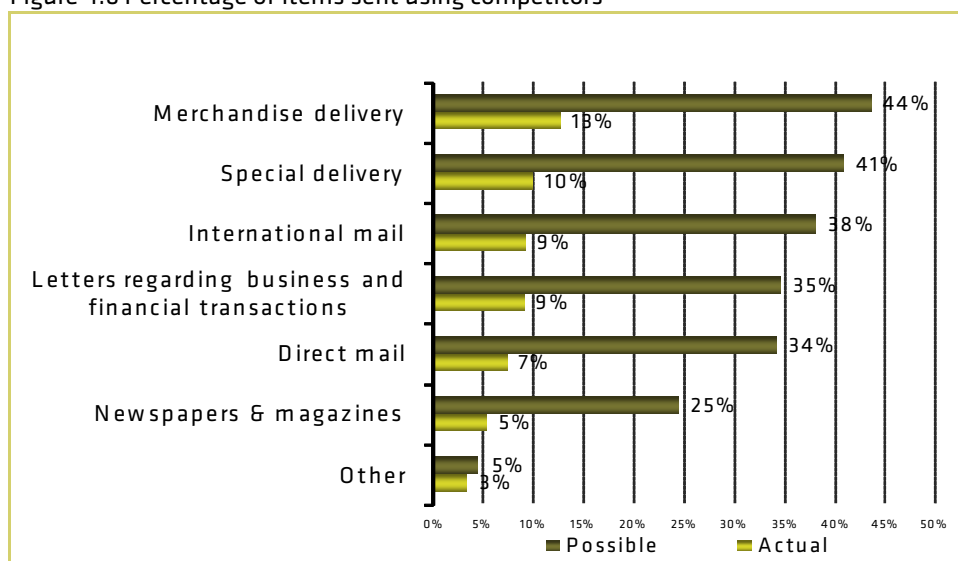
Source: Country fiche appendix, indicator x.5.3

Main reasons for switching or not switching

Mailers use alternative operators to a reasonable extent, when they have they have an opportunity to do so, such as an offer from an alternative postal service provider which matches or exceeds the conditions of the existing provider. Nevertheless, while there is still significant room for growth in private operators' share in the total demand for postal services by mailers, national postal operators remain important for mailers. The main services for which competitor operators are used include merchandise delivery and special deliveries, cf. Figure 4.6, where private mailers, on average, account for about 10-13 percent of the demand for

mail services by mailers. In these segments, private operators would be in position to provide approximately 40 percent of services to satisfy all mailers' needs. Even if that happened, however, national postal operators have retained a significant portion of the demand by mailers, particularly for the delivery of newspapers and direct mail, where they would remain responsible for as much as 75 and 65 percent of the demand, respectively.

Figure 4.6 Percentage of items sent using competitors



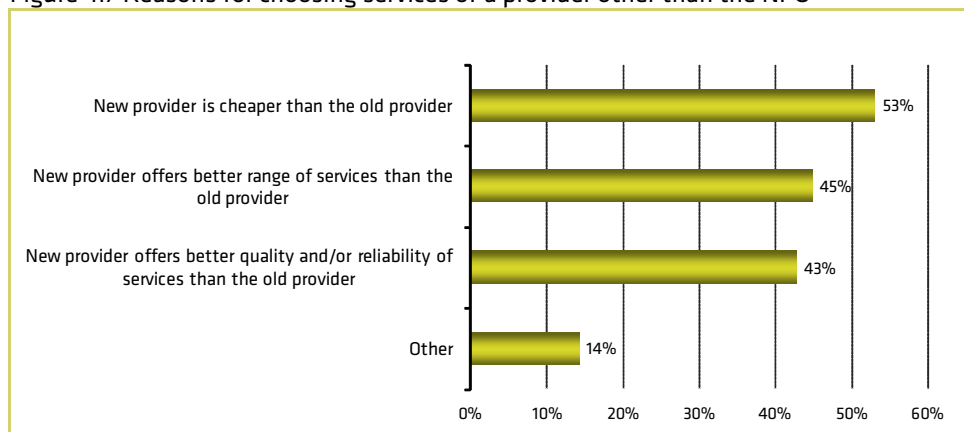
Note: Actual – survey question: “For each of the following items, approximately what proportion of those items is sent using competitors to the incumbent?”

Possible – survey question: “Suppose that your organisation chose to use competitors to the incumbent for all possible postal services, for what proportion of such items sent could you use a competitor?”

Source: Copenhagen Economics business survey (cf. Section 5.7 for a description of the survey).

Among the main reasons for choosing the services of a provider other than the NPO are cost issues (“New provider is cheaper than the old provider”), range of services (“New provider offers better range of services than the old provider”) and quality of services (“New provider offers better quality and/or reliability of services than the old provider”), cf. Figure 4.7.

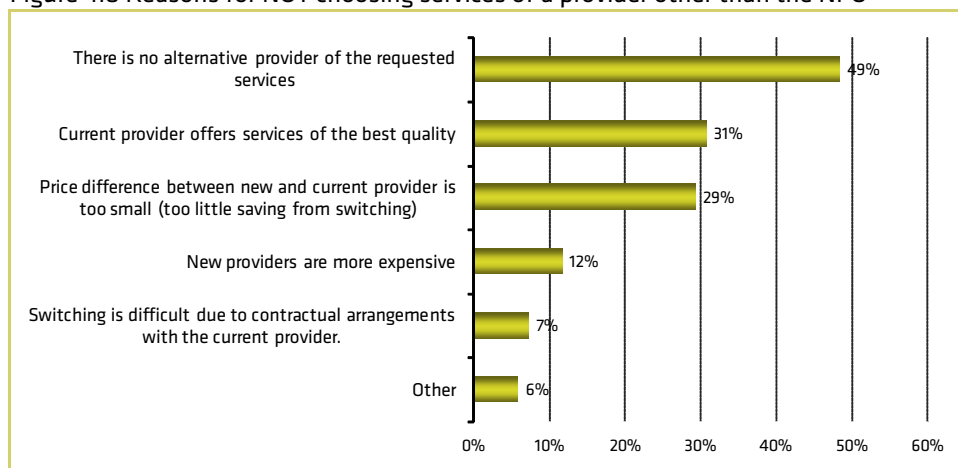
Figure 4.7 Reasons for choosing services of a provider other than the NPO



Source: Copenhagen Economics business survey

In cases where mailers do not choose the services of another provider to the NPO, the main reason given is that the provider cannot offer the kind of services required, or that the services offered are not equivalent to the quality of the services offered by the NPO. Price differences (too small to justify switching, or too large in favour of the NPO) are also important reasons for retaining the services of the NPO, cf. Figure 4.8.

Figure 4.8 Reasons for NOT choosing services of a provider other than the NPO



Source: Copenhagen Economics business survey

4.5. COMPETITION CASES

The information about recent competition cases provided in this section is collected in two ways. First, we have asked all NPOs to provide information about their involvement in competition cases since 2007. Second, we have complemented this input with our own desk research of the websites of the national competition authorities to reveal any unreported cases, ongoing as well as closed ones.

Our research reveals that, in the period between 2007 and 2010, the countries covered in this study handled 26 competition cases in the postal sector. The majority of such cases concerned predatory pricing, rebates and anti-competitive agreements, and thus were violating the competition rules in the Treaty on the Functioning of the European Union (TFEU). The TFEU contains provisions on regulating competition in the internal market:

- Article 101 – prohibits anti-competitive agreements;
- Article 102 – prohibits abuse of dominant position.

We find that most competition cases in the last three years concern the markets for unaddressed or direct mail. Out of the 26 cases reported in the period 2007-2010, 13 concern the markets for unaddressed or direct mail, cf. Table 4.6.

Table 4.6 Competition cases 2007-2010

Country	Product	Type of case
AT	Products outside the reserved area	Ongoing case
BE	Unaddressed mail	Closed case: Predatory pricing, discriminatory pricing, cross-subsidisation
DK	Unaddressed items	Appealed case: Predatory pricing
	Unaddressed items	Appealed case: Rebates
	Direct mail ¹	Closed case: Rebates (exclusionary loyalty)
	Direct mail	Appealed case: Rebates (loyalty)
FI	Unaddressed mail	Ongoing case: Rebates (discriminatory + loyalty), cross-subsidisation, predatory pricing
FR	USO products	Closed case: Commercial rebates (described in section 4.6 on consolidators)
HU	Newspapers/periodicals	Closed case: Cartel (between previously integrated entities)
IT	Reserved area	Closed: Exclusivity and barriers to entry
	Inbound cross-border mail	Ongoing case: Abuse of dominant position: remaining activities.
	Various postal services	Ongoing case: Foreclosure strategy: abuse of dominant position
LI	Direct mail	Closed: Price discrimination
NL	Mail delivery	Closed: predatory pricing, tying and bundling, exclusive long-term contracts, and price discrimination
	Mail delivered by Network VSP	Ongoing case: abuse of dominant position, predatory pricing
NO	Parcels	Appealed case: Exclusivity
	Unaddressed items	Closed: Rebates
RO	Direct mail	Ongoing: Discriminatory tariffs
SI	Unaddressed mail	Closed case: Predatory pricing, discriminatory rebates, exclusivity
SK	Hybrid mail	Closed case: Breach of the EC Treaty ²
SE	Direct mail, unaddressed items, economy size mail	Closed: Rebates (loyalty)
	Pre-sorted mail	Closed: Predatory pricing
UK	Parcels	Ongoing case: allegations of margin squeeze and alleged breaches of Conditions 10 and 11 of the Licence
	Various postal items	Closed case: Rebates
	Presorted direct mail	Closed case: Predatory pricing, margin squeeze
	Presorted mail	Closed case: Rebates
BG, CH, DE, EE, ES, IE, IS, LT, LU, LV, MT, PT,	No cases	
CY, CZ, PL	No information	

Note: - means no information. ¹The case concerned magazine mail, i.e. among other things, weekly and monthly magazines, periodicals, non-daily newspapers, catalogues and addressed advertising. ²Breach of the EC Treaty is not a national competition case, but is handled by the European Commission, DGCOMP.

Source: Country fiche appendix, indicator x.2.11., European Commission, DG COMP website, websites of the national competition authorities

We also observe that the majority of these cases concern the abuse of dominant position in the application of different kinds of illegal rebates, predatory pricing and cross-subsidisation. Below, we provide a short description of the latest closed and appealed cases from Table 4.6:

Belgium: In 2006, De Post/La Poste was accused by Belgische Distributiedienst of predatory pricing, discriminatory pricing and cross-subsidisation in relation to the rates offered to its subsidiary DeltaMedia in the distribution of unaddressed items. In 2007, the plaintiff with-

drew the complaint as DeltaMedia stopped their distribution of unaddressed and concentrated on newspaper delivery instead.⁴⁰

Denmark: In 2004, Post Denmark's main competitor on the market for unaddressed mail, Forbruger-Kontakt, filed a complaint against Post Denmark, accusing Post Denmark of predatory pricing in its contracts with large customers. The Competition Council concluded that Post Denmark had not abused its dominant position by engaging in predatory pricing. Forbruger-Kontakt appealed the decision to the Danish Competition Appeals Tribunal, which upheld the decision of the Competition Council in 2005. The decision taken by the Competition Appeals Tribunal was appealed by Forbruger-Kontakt to the High Court of Eastern Denmark. However, Forbruger-Kontakt later decided to withdraw the appeal related to the predatory pricing case.⁴¹

Denmark: In December 2007, The High Court of Eastern Denmark upheld the rulings of both the Danish Competition Council and the Danish Competition Appeals Tribunal which had found that Post Denmark had abused its dominant position on the market for distribution of unaddressed mail (e.g., advertisements) and local and regional newspapers by applying exclusionary loyalty rebates and discriminatory prices to certain customers where the differentiation was not based on its costs. In addition, on May 20, 2009, the High Court of Eastern Denmark ordered Post Denmark to pay compensation for damages related to this abuse to its main competitor on the market, Forbruger-Kontakt, amounting to DKK 75 million (approx. €10 million). This judgment is under appeal to the Supreme Court.⁴²

Denmark: In 2007, Post Denmark was ordered to change its prices and rebates on magazine mail in Denmark.⁴³ The plaintiff, Forbruger Kontakt, an operator and competitor to Post Denmark on the market for magazine mail in Denmark, accused Post Denmark of abuse of its dominant position by using an excluding and discriminating price system. The Competition Council concluded that the marginal prices offered by Post Denmark did not allow competitors to gain market shares large enough to cover their average total cost and that Post Denmark was discriminating among customers competing with each other by applying prices and rebates on an individual basis.⁴⁴

Denmark: In 2009, Post Denmark was found guilty of abusing its dominant position by applying loyalty rebates with exclusionary effects on the market for direct mail. The rebate scheme provided senders with rebates based on the number of items or on the purchase in a year. The rebates were retroactive, meaning that the obtained rebate applied to all delivered items. The complaint was filed by Bring Citymail, the main competitor to Post Denmark on this market at that time (Citymail later exited the market). The decision of the Competition

⁴⁰ Belgian Competition Council (2007), Beslissing nr. 2007-P/K-29-AUD van 19 november 2007.

⁴¹ Danish Competition Council, 24.11.2004, Journal no. 3/1120-0100-1205/ISA/CHJ/TWA.

⁴² Cleary Gottlieb (2010).

⁴³ Magazine mail is a product category containing, among other things, weekly and monthly magazines, periodicals, non-daily newspapers, catalogues and addressed advertising.

⁴⁴ Danish Competition Council, 30.08.2007, Journal no 4/0120-0100-0048/ISA/TWA.

Council was appealed to the Competition Appeals Tribunal, who in March 2010 upheld the decision of the Competition Council in its entirety.⁴⁵

Hungary: In 2007, The Hungarian Post Co. Ltd. and the Hungarian Wholesale Newsagent Co. Ltd. (previously owned by the Hungarian Post Co. Ltd.) was fined EUR 1.890.000 each for cartel behavior. The undertakings had entered into an agreement restricting competition where they agreed not to attack each other's markets. The case is finished, but has been re-opened for Supreme Court supervision.⁴⁶

Italy: In 2008, Poste Italiane was accused by some of the main associations of postal businesses of exercising anti-competitive behavior in contractual relations with former licensees under Article 4 and 23 of Legislative Decree 261/1999 for a series of postal services included in the reserved area. The proceeding concerned supply agreements entered into by Poste Italiane with delivery agencies between December 2000 and January 2007 and an invitation to tender issued in May 2007 for contracts on various postal services. The Authority accepted the commitments proposed by Poste Italiane and closed the investigation initiated under Article 82 of the EC Treaty without any infringements.⁴⁷

Lithuania: In 2007, the Supreme Administrative Court of the Republic of Lithuania found the NPO, *AB Lietuvos paštas*, guilty of abusing its dominant position in the reserved area by seeking to outmarket its competitors (*UAB BMK* and *UAB NAC*) from the closely related market of invoice printing, binding and enveloping. *AB Lietuvos paštas* was found infringing the requirements of Article 9 of the competition law by exercising price discrimination. Being aware of the prices offered by competing companies in advance, *AB Lietuvos paštas*, was in a more favourable position to offer more attractive mail delivery prices when tendering for contracts of combined invoicing, printing, enveloping and delivery to addressees. The operator was fined LTL 80.000 (approx. EUR 23,000) for the abuse.⁴⁸

Netherlands: In 2009, one of TNT's subsidiaries, Netwerk VSP Geadresseerd B.V. (delivering part of its mail using TNT's network) accused TNT of predatory pricing. Having carried out a thorough investigation, the Dutch Competition Authority (NMa) found no indications that TNT was abusing its dominant position on the Dutch mail market.⁴⁹

⁴⁵ Danish Competition Council (2010), *Kendelse afsagt af Konkurrenceankenævnet den 10. maj 2010 i sag nr. 2009-0019768*.

⁴⁶ Hungarian Competition Authority (2007), http://www.gyh.hu/domain2/files/modules/module25/pdf/print_sk_140_2006_lezart_Posta_a.pdf

⁴⁷ AGCM, Annual Report (2007), p. 31, [http://www.agcm.it/agcm_eng/RELAZ/ANNRPT07.NSF/e2b875a66204ef5ac125650e004c6a40/f78e9dd845c01bbec125750700509fc0/\\$FILE/rel_07.pdf](http://www.agcm.it/agcm_eng/RELAZ/ANNRPT07.NSF/e2b875a66204ef5ac125650e004c6a40/f78e9dd845c01bbec125750700509fc0/$FILE/rel_07.pdf)

⁴⁸ Competition Council of the Republic of Lithuania (2007), http://www.konkuren.lt/en/index.php?show=news_view&cpr_id=454

⁴⁹ The Dutch Competition Authority (2009), http://www.nmanet.nl/engels/home/News_and_publications/News_and_press_releases/Press_2009/09-33_NMa_no_indications_of_TNT_abusing_a_dominant_position.asp

Norway: In 2010, Posten Norge AS was found to have abused its dominant position through its strategy and behaviour in relation to its Post-in-Shop network in Norway. The network consists of retail outlets such as grocery stores, kiosks and petrol stations from which postal services are provided. By replacing post offices with Post-in-Shops, Posten Norge AS has been able to reduce its costs substantially while increasing the availability of postal services to the public. However, in doing so, Posten Norge AS opted for an exclusivity-strategy preventing competing suppliers of parcel services from using certain retail chains and retail outlets as collection points for their parcels. Posten Norge AS has been fined EUR 12.89 million for breach of Article 54 of the EEA Agreement.⁵⁰ The case has been appealed.

Norway: In 2008, The Norwegian Competition Authority ruled in favor of Posten Norge AS being accused by Norpost AS (a competitor in the delivery of unaddressed items) of applying discriminatory rebates. Norpost relies on Posten Norge's distribution channels when delivering unaddressed items in some parts of Norway. From 2007, Posten Norge computed its rebates for its delivery services on the basis of the yearly volume delivered. Norpost meant that this practice led to hidden rebates for some customers and forced Norpost out of business. The competition authority did not find any evidence of abuse and closed the case without further investigation.⁵¹

Slovenia: In 2008, Pošta Slovenije, d.o.o. was found to have abused its dominant position and have discriminated against its customers, who acted as agents, by not granting the discounts for the whole quantity of distributed unaddressed mail, but by granting discounts only to each individual competitor's customer. Pošta Slovenije, d.o.o. was also found to have abused its dominant position by requiring competitors to agree to exclusive contracts or to agree not to compete for its existing customers. The NCA accepted the commitments proposed by Pošta Slovenije, d.o.o.⁵²

Slovak Republic: In 2008, a legislative proposal aiming at reserving the delivery of hybrid mail to Slovenská pošta was introduced in the Slovak Republic. The proposal was adopted in second reading in Parliament and became applicable on 1 April 2008. Simultaneously, the NRA issued a public statement informing stakeholders that, despite previous statements and decisions, it would now consider hybrid mail delivery to be part of the postal monopoly. The European Commission found the practice infringing Article 82 of the EC Treaty and called upon the Slovak Republic to propose effective measures so as to put an end to the infringement.⁵³

⁵⁰ ELIA Surveillance Authority (2010), <http://www.eftasurv.int/press-publications/press-releases/competition/nr/1285>

⁵¹ The Norwegian Competition Council (2008), <http://www.konkurransetilsynet.no/no/vedtak-og-uttalelser/Vedtak-og-avgjorelser/Norpost-AS---avslag-pa-anmodning-om-a-gripe-inn-mot-Posten-Norge-AS/>

⁵² OECD (2009), Annual report on competition policy developments 2008

⁵³ Official Journal of the European Union (2008), Summary of Commission Decision of 7 October 2008 relating to a proceeding under Article 86(3) of the EC Treaty on the Slovakian postal legislation relating to hybrid mail services (Case COMP/F-1/39.562).

Sweden: In June 2009, Bring Citymail Sweden AB accused Posten AB of abusing its dominant position under Chapter 2.7 § of the Competition Act and Article 102 of the TFEU. Posten AB offered discounts for large consignments of sorted mail, which is Bring Citymail's main business area. Bring Citymail argued that the discounts for postal sorting constituted loyalty rebates and led to unlawful foreclosure. After investigating the issue, the Competition Authority did not find that the conduct of Posten AB infringed competition rules and therefore decided not to intervene under the Competition Act.⁵⁴ In March 2010, Bring Citymail took the case to the Swedish Market Court⁵⁵ and sued Posten Meddelande AB for abuse of its dominant position.

Sweden: In 2007, the Swedish Competition Authority investigated the zonal pricing applied by Posten AB. The investigation was initiated after a complaint filed by Bring Citymail. The Competition Authority did not find any evidence of the practice applied constituting an abuse of Posten AB's dominant position. However, during the investigation, the Competition Authority conferred with the NRA (the Swedish Post- and Telecom Agency), which promised to start an investigation of the price system to test its compatibility with Postal law.

In November 2007, the NRA urged Posten AB to voluntarily stop the zonal price system in place based on the conclusion that Posten AB could not prove a sufficient cost difference between the zones. Following that, Posten AB revised its price system (still zone based) and developed a cost model which it presented in January 2009. However, the NRA still did not consider the system compatible with the Postal law applicable at that time. After slight revisions, Posten AB started to apply the new prices in January 2010.

In an injunction from September 2010, the NRA questioned whether zonal pricing is generally compatible with cost-oriented price models. It is of the opinion that Posten AB should stop its zone based price system in the future, but at the time of the injunction there was not enough substantiated documentation available to demand that Posten AB do so. However, if Posten AB maintains its zone based prices, the injunction prescribes that it also has to apply its cost model strictly and without exceptions.⁵⁶

United Kingdom: In January 2008, the Mail Competition Forum (MCF) lodged a complaint about Term Contracts, alleging a breach of Condition 11 of Royal Mail's licence. Condition 11 of Royal Mail's licence relates to the promotion of effective competition. Among other things, it prohibits undue discrimination and undue preference in the provision of postal services, and prohibits Royal Mail from charging excessive or predatory prices.

⁵⁴ Swedish Competition Authority (2009), <http://www.kkv.se/beslut/09-0381.pdf>

⁵⁵ The Market Court (Marknadsdomstolen) is a specialized court which handles cases related to the Competition Act as well as cases involving the Marketing Act and other consumer and marketing legislation.

⁵⁶ The Swedish Post- and Telecom Agency (2010), Föreläggande om rättelse av tillämpningen av Posten AB:s prismodell (zonprismodellen), <http://www.pts.se/upload/Beslut/Post/2010/10-8803-forelaggande-posten-zonindelning.pdf>

Term Contract discounts were first introduced for Mailsort services by Royal Mail in April 2008 and is a pre-sorted bulk mail service offered for letters, large letters, A3 packets and packets by Royal Mail to its account customers. Customers who sign a Term Contract receive a discount of 1.4% or 2% for one or two years respectively, for a commitment to mail at least one million items a year and then have a weekly collection for at least 48 weeks of the year. In May 2010, Postcomm announced that Royal Mail was not in breach of its license in offering Term Contracts. The investigation into Term Contracts was therefore closed.

United Kingdom: Complaints were raised that Mailsort Light represented a barrier to effective competition and that the pricing schemes adopted were predatory and gave rise to a margin squeeze. Royal Mail had introduced Mailsort Light in 1994 in order to stimulate mail volumes by encouraging marketers to use mail in their direct marketing campaigns to make mail more competitive with other media. Postcomm decided in May 2010 to reject a complaint about Royal Mail's Mailsort Light offer. Therefore the investigation into Mailsort Light was completed. However, the agency still does not consider itself to be in a position to reach a definitive view, in part due to the lack of robust costing information.⁵⁷

United Kingdom: In March 2009 Postcomm found that Royal Mail's offer of Tailor Made Incentives (TMIs) for its second class Mailsort 2 services contravened and was likely to continue to contravene its access headroom licence conditions. In response to a proposed final order from Postcomm, Royal Mail undertook not to reintroduce TMIs on Mailsort 2 products. Postcomm decided, in the light of the circumstances, not to impose a penalty on this occasion.⁵⁸

Substitution between direct mail and electronic direct marketing

In the context of increased e-substitution, and the frequent occurrence of direct mail in the most recent postal competition cases, it is to define the relevant market for this product to determine whether the alleged infringing party has a dominant position or not.

This has been done by the Danish Competition Council among others, which in 2009 concluded that there is a separate market for the direct mail product which did not include other forms of advertisement, cf. Box 4.1.

⁵⁷ Postcomm (2010a),

http://www.psc.gov.uk/latestnews/2010/latestnews/2010/maillight_royal_mail_not_in_breach_of_its_licence/

⁵⁸ Postcomm (2010b),

http://www.psc.gov.uk/latestnews/2010/latestnews/2010/term_contracts_royal_mail_not_in_breach_of_its_licence/

Box 4.1 The relevant market for direct mail in Denmark

In relation to the investigation of Post Denmark's rebate scheme for its direct mail product, the Danish Competition Council defined the relevant market for the product to conclude whether Post Denmark was in possession of a dominant position.

The Competition Council investigated the level of substitution between direct mail and other forms of direct marketing such as sms/mms and e-mail. In the opinion of the Council, the legal and practical barriers for substitution (e.g. the prohibition of unrequested e-enquiries and senders' lack of access to recipients e-mail addresses) prevent the different direct marketing products from being part of the same market.

However, by conducting a critical loss analysis, Post Denmark had tried to prove that the market for direct mail also includes other products. There were mainly four reasons why the Competition Council did not agree with this analysis and its results.

- A critical loss analysis is not applicable in a case without competitive prices (this is known as the Cellophane Fallacy problem).
- The analysis contained methodological mistakes. For instance, it did not assess the destination of the volumes lost and did not take the profit margins of competitors into account.
- The price sensitivity estimates concerning the customers of Post Denmark had been calculated based on too high price changes and incorrect assumptions about the geographical coverage of the competitors.
- The anecdotic evidence that Post Denmark had presented to support the view that direct mail is part of a larger market, was not considered to contain enough hard facts.

The Competition Council concluded that the relevant market in the case consisted of bulk mail, therein direct marketing and mail items in large quantities sent by businesses, organizations, and public authorities.

Source: The Danish Competition Appeals Tribunal (2010)

State aid

According to Article 87(1) of the Treaty, a measure constitutes state aid if the following four cumulative decisions are met:

- (i) The measure must confer an advantage on the beneficiary;
- (ii) The measure must distort or threaten to distort competition by favouring certain undertakings;
- (iii) The measure must be taken by the State or must involve state resources;
- (iv) The measure must be capable of affecting trade between Member States.

In the period 2007-2010, the European Commission reached a decision in seven state aid cases related to the postal markets across Europe. One case involving the Belgian NPO De Post/La Poste, is still ongoing. In six out of the seven cases where a decision was reached, state aid was found partly or entirely compatible with the common market, cf. Table 4.7.

Table 4.7 State aid cases 2007-2010

Country	Product/service	Decision
BE	USO	Ongoing investigation
DE	Parcel delivery	State aid compatible with common market
DE	Express/Parcel delivery	State aid partly compatible with common market
DE	Express/Parcel delivery	State aid partly compatible with common market
FR	Civil servants' pension reform	State aid compatible with common market
FR	All activities of the NPO	State aid not compatible with common market
FR	Express/Parcel delivery	Access granted does not constitute state aid
PL	USO	State aid compatible with common market
UK	Pension contributions	State aid compatible with common interest

Source: European Commission, DG COMP website and overview of cases in the area of State aid in the postal sector

A short description of the closed cases from Table 4.7 follows:

France: In October 2007, the European Commission found the aid measures granted La Poste for financing the retirement pensions of civil servants to be compatible with the common market. According to French law, La Poste has to ensure the financial equilibrium of the social security scheme covering the civil servants assigned to it and has therefore the obligation to reimburse the State for the amounts paid out to its civil servants. Since the contract between the State and La Poste held this repayment steady in constant Euros at its 1997 level (the '1998 cap') the Commission suspected that it constitute a compensatory measure from which La Poste could have benefited in the past. After investigating the matter, the Commission found the cap and the notified reform of the pension arrangements for civil servants constitute State aid compatible with the common market provided that certain conditions are met.⁵⁹

France: In 2007 the European Commission launched an in-depth investigation into the unlimited state guarantee implicitly granted to La Poste. The guarantee was provided free of charge, and was not confined to universal postal service activities but also covered La Poste's commercial activities, thus conferring an economic advantage over its competitors, which operate without such a guarantee. The guarantee was therefore considered to distort competition on the postal markets, making it incompatible with the common market. In January 2010, the Commission reached the formal decision to ask the French authorities to remove the guarantee by 31 March 2010 at the latest.⁶⁰

France: In July 2008, the Court (Grand Chamber) issued a final ruling in a case regarding the applicability of Article 87(1) to arrangements whereby Chronopost, an express parcels delivery company which is a subsidiary of La Poste, was given access to La Poste's national network. The question was whether this access (which was an advantage given specifically to

⁵⁹ Official Journal of the European Union 7.3.2008,

<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:063:0016:0042:EN:PDF>

⁶⁰ European Commission (2010), Press release 26th January 2010, State aid: Commission completes its investigation into the unlimited guarantee for the French Post Office,

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/51>

Chronopost out of the State resource that is the La Poste network) constituted state aid. On 1 October 1997, the Commission found that there was no state aid. This decision was appealed to the Court of First Instance (CFI), which in December 2000 annulled the Commission finding. The CFI decision was then appealed to the European Court of Justice, which in July 2003 annulled the CFI decision on the grounds that the CFI had erred in law in setting out the relevant test for the existence of state aid, and referred the matter back to the CFI. In June 2006 the CFI annulled the Commission decision again, this time on the grounds of lack of reasoning and because the Commission had been wrong to disregard the value of goodwill in the transfer of Postadex (including a customer database) from La Poste to Chronopost. In 1 July 2008 the ECJ annulled the CFI's new decision and definitely restored the Commission's finding of no aid.⁶¹

Germany: In September 2010, the European Court of Justice ruled in favour of Deutsche Post in a case concerning funding granted by Germany's government for the provision of mail delivery services. The matter arose after a complaint from UPS, accusing Deutsche Post for selling door-to-door parcel delivery services below cost and subsidizing the losses with the state aid money. In 2002, the Commission found that the funding constituted illegal state aid and ordered its repayment. Deutsche Post appealed this decision to Europe's General Court, which ruled that the Commission had failed to sufficiently examine whether the support had put Deutsche Post at an advantage in the market. This was confirmed in the ECJ ruling.⁶²

Germany: In 2006, the European Commission initiated a procedure against DHL, investigating three measures connected to the decision of DHL to move its European air hub to Leipzig by 2008: (a) capital contributions to Leipzig Airport for financing the construction of a new runway; (b) a framework agreement obliging the airport to construct the new runway, and to honour further assurances for the entire duration of the agreement; (c) a comfort letter in favour of Leipzig Airport and DHL which guarantees that Land Sachsen will compensate DHL for damages in the event that DHL will no longer be able to operate as foreseen at the airport. Whereas the Commission found the compensation in relation to the construction of a new runway to be compatible with the common market, the aid granted in the comfort letter and the framework agreement was found not to be compatible with the common market and had therefore to be abolished.⁶³

Germany: In 2006, Germany notified the European Commission of training aid for DHL consisting of a direct grant for the training measures for 485 employees from the Free State of Saxony and the Land of Saxony-Anhalt amounting to EUR 7 753 307. The training was

⁶¹ Official Journal of the European Union 15.8.2008, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:209:0006:0007:EN:PDF>

⁶² Global Competition Review (2010), Deutsche Post triumphs EU state aid saga, article published on September 2nd 2010, <http://www.globalcompetitionreview.com/news/article/28970/deutsche-post-triumphs-eu-state-aid-saga/>

⁶³ Official Journal of the European Union 23.12.2008, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:346:0001:0036:EN:PDF>

mainly intended to provide workers with the knowledge and ability to perform specific activities and consisted of theoretical training and practical on-the-job training at the DHL hub in Leipzig. After investigating the matter, the Commission concluded in 2008 that part of the granted aid was not used for additional training but covered normal operating expenditure of the company. As such, this part of the aid was found to reduce costs normally borne by DHL and to distort competition and affect trading conditions to an extent contrary to the common interest. The remaining part of the aid granted was found to comply with the criteria for determining compatibility with the common market.⁶⁴

Poland: In December 2009, the European Commission endorsed a Polish scheme intended to compensate Polish Post for net losses incurred in discharging its public service obligations between 2006 and 2011. The Commission found the compensation mechanism to be compatible with Article 106(2) of the TFEU, provided that certain conditions were fulfilled. In particular, Poland must improve the entrustment act and ensure that any significant changes to the cost allocation method for compensatory payments remain compatible with the cost accounting rules of Article 14 of the EU Postal Directive (97/67/EC).⁶⁵

United Kingdom: In 2009, The European Commission decided that four state measures granted in favour of the UK postal incumbent Royal Mail between 2001 and 2007 were in line with EU state aid rules. The Commission concluded that three out of the four measures did not contain state aid because they were granted under market conditions. In the case of a fourth measure, which concerned Royal Mail's pension liabilities, the Commission authorised it under EC Treaty rules allowing state aid to facilitate certain economic activities (Article 87.3c) because it covered abnormal costs which had arisen from the previous period when Royal Mail had a monopoly over the letters market.⁶⁶

4.6. SITUATION OF MAIL CONSOLIDATORS

Mail consolidators are intermediaries taking advantage of differences in the prices offered by operators to different types of business customers. In cases where consolidators act as arbitrageurs, they put competitive pressure on the NPO. Recently, consolidators have come into the spotlight following instances of being refused access to discounts otherwise granted to "ordinary" large mailers by operators. This created concerns over the state of competition in the market for consolidation.

Although consolidators do not generate mail directly, we show that they remain important actors in the postal market. They have the possibility of increasing efficiency and intensifying

⁶⁴ Official Journal of the European Union 22.11.2008, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0031:0045:EN:PDF>

⁶⁵ European Commission (2009), Press release 15th December 2009, State aid: Commission approves public service compensation for Polish Post until 2011, subject to conditions, <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1931>

⁶⁶ Official Journal of the European Union 14.8.2009, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:210:0016:0035:EN:PDF>

competition both in downstream (delivery) as well as upstream (sorting) postal operations. Article 12 of the Postal Directive gives mail consolidators the freedom to operate, ensuring that they are not discriminated against due to lack of access to delivery networks of the NPO.⁶⁷ The Vedat Deniz case has further defined the right of access of consolidators to the services of the NPO, including special tariffs.

In what follows, we begin by providing a definition of mail consolidators and outline the main business models present in Europe. We then summarise the situation of consolidators by focusing on the latest developments with respect to competition issues. We conclude by examining the circumstances which determine whether equal access to rebates is desirable from the point of view of the development of competition in postal markets.

Definition and business models

The Commission's Green Paper on the development of the single market for postal services gives the following definition of consolidation⁶⁸:

“Consolidation literally refers to the gathering together of items from different sources and (in terms of transport) then despatching the items in bulk. In terms of mail, consolidators collect mail from different customers, bulk it together and then despatch it to the operator chosen for the next phases (transport and delivery).”

While this can be considered is a general definition, when considering the business models of consolidators in the different EU postal markets it is worthwhile distinguishing between the following more detailed aspects:

- Consolidators' relationship to the operator;
- Consolidators' relationship to the mailer;
- Access to operator rebate schemes;
- Cashflows.

In practice, there are two main business models used by consolidators. In addition to those, the models present in some countries can be described as hybrids of the two polar cases.

In the first model, mailers enter into a contract with consolidators who aggregate mail of several small customers. Consolidators then enter into a contract with the operator and “inject” mail items into its network. Consolidators in the first model hope to obtain more favourable discounts from the operator based on the fact that their volumes are larger when compared to individual mailers' and therefore able to obtain larger the discounts. The role of

⁶⁷ The European Commission has stated that upstream activities, involving preparation of mail prior to transmission and proper distribution, are not subject to postal monopoly and can be performed by firms other than the incumbent (Decision no. 2002/344/EC of October 23, 2001).

⁶⁸ COM(91) 476

the consolidator is thus to provide price arbitrage by making smaller mailers benefit from access to (a part of) the more favourable volume discounts granted by the operator.⁶⁹

In the second model, mailers enter into contract with consolidators. However, consolidators do not establish a contractual relationship to the operator. Instead, they rely on the mailer's contract with the NPO.⁷⁰ The role of consolidators in the second model is thus to help mailers perform certain processes in the postal value chain more efficiently than those clients are able to do on their own, for example by being able to produce sorted mail. In this way, mailers are themselves able to obtain better price terms from the operator because the mail they dispatch has higher value added. Consolidators are then remunerated for this value added by the mailer.

In the third model, mailers enter into a contract with the operator for the delivery of their mail. However, the operator subcontracts certain processes to consolidators. The role of consolidators is thus similar as in model two: It is to provide efficiency. However, it is the operator that benefits from more efficiency rather than the mailer, and it is the operator that compensates the consolidator rather than the mailer. In this model, the consolidator does not require access to operator rebate schemes since the consolidator never becomes a client of the operator.

Table 4.8 summarises the business models followed by mail consolidators in different EU Member States.

⁶⁹ Teleconference with ARCEP (Julien Coulier and Guillaume Lacroix), 16 April, 2010.

⁷⁰ Interview with Kaj Peterson, CEO, 21 Grams, Copenhagen, 15 June, 2010.

Table 4.8 Models of mail consolidation in Europe

Feature	Model 1: "Mail of consolidators"	Model 2: "Mail of mailers"	Model 3: "Mail of operator"
Operator relationship with the mailer	No relationship	Client of operator	Client of operator
Consolidator's relationship with the mailer	Contract with mailer	Subcontractor to mailer	No relationship
Consolidator's relationship with the operator	Client of operator	No relationship	Subcontractor to operator
Cash flows	Consolidator pays the operator for mailing. Consolidator charges mailer a lower price than operator would.	Mailer pays the operator for mailing. Consolidator charges mailer for value added.	Mailer pays the operator for mailing. Operator pays the consolidator for processing mail (work sharing).
Access to operator rebate schemes	Consolidators may be treated like mailers and consolidators receive same discount for work-sharing as mailers and may receive same quantity rebates as mailers.	Consolidators are not treated as mailers. They do not directly take advantage of operator rebates.	Consolidators are subcontractors to the operator. Operator pays rebates to the consolidator for work sharing.
Role of consolidator	Arbitration and mail processing	Provide efficiency in mail processing	Provide efficiency in mail processing
Model country	France	Sweden / UK	Germany

Source: Copenhagen Economics, interviews with Kaj Peterson, ARCEP, Almast Diedrich

Consolidators active in the EU

Consolidators are active in 13 European postal markets, although the significance of their activities differs. In this subsection, we give an overview of the different EU markets for consolidation.

France

Measured in terms of turnover handled by consolidators, the French market for consolidation is the largest in Europe. Consolidator turnover accounts for about 5 percent of the turnover in the postal sector. As much as 85 percent of direct mail is handled by consolidators. Until La Poste introduced a new rebate scheme in 2008, the predominant model of consolidation was model 1.⁷¹

In France, La Poste had operated a system of discounts offered to the individual mailers for over 10 years. Prices in the system were not based on avoided costs but rather on the quality of the commercial relationship to the client, determined by the value of annual sales. Typically, the rebates amounted to 1-8 percent, depending on the value of mail generated by the mailer. Approximately 30 percent of La Poste's letter post revenues and 50 percent of its business clients are eligible for the discounts.⁷²

⁷¹ Interview with ARCEP, 16 April, 2010.

⁷² Interview with ARCEP, 16 April, 2010.

Other markets

The role of consolidators in other postal markets is smaller in relation to the size of the domestic postal market than in France, cf. Table 4.9. In Germany, consolidators account for about a half of the share of the postal market as compared to France. Consolidators are also active in the UK and Sweden, though the current study does not have information on the size of their activities. Consolidators are not active in 6 markets: Cyprus, Estonia, Finland, Greece, Malta and Poland.

Table 4.9 Overview of EU markets for consolidation

Country	Consolidators present	Turnover of mail consolidators in percent of the national postal market*
Czech Republic	Yes	-
Denmark	Yes (unaddressed items)	-
France	3 companies	5 percent
Germany	Yes	2.3 percent
Hungary	Yes	Unknown (probably low)
Ireland	Yes	-
Italy	Yes	-
Lithuania	Yes	-
Luxembourg	Yes	Minor
Netherlands	Yes	-
Romania	Yes	-
Slovenia	Yes	-
Sweden	Yes	Small but no exact figures available
Cyprus, Estonia, Finland, Greece, Malta, Poland	Not present	

*Note: The countries not listed in the table above did not provide an answer to the question on the activities of consolidators. * Estimates of turnover share are provided by the NRA.*

Source: Country fiche appendix, indicator x.5.8

Competition issues in the market for consolidation

In this section, we outline the latest competition cases involving consolidators in the EU.

Table 4.10 summarises the cases taking place in recent years.

Table 4.10 Overview of competition cases involving consolidators in the EU

Country	No. of countries	Countries
Cases handled by the NRA	1	Germany
Cases handled by the competition authority	2	France, Denmark
No cases	14	Czech Republic, Denmark, Estonia, Hungary, Italy, Luxembourg, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Sweden and Switzerland

Source: Country fiche appendix, Indicator x.5.8

France

Up to 2008, La Poste's rebates were available to both mailers and consolidators. In 2008, La Poste proposed a rebate scheme which *de facto* was no longer available to consolidators. On the one hand, La Poste argued that the new rebates were to stimulate demand from price-

sensitive large senders. Consolidators, on the other hand, did not generate new volume and therefore should not qualify for discounts.

Following complaints before the French civil courts, the French NRA, ARCEP, asked the competition authority, *Conseil de la Concurrence*, for its opinion⁷³ on the competition effects of the new rebate scheme, in particular with respect to the following three questions:

- Are there foreclosure effects in the market for consolidation?
- Could the rebates – second degree price discrimination – have negative effects on the mail distribution market?
- Should rebates granted to large senders mandatorily be extended to consolidators – avoiding third degree price discrimination?

Regarding the first question, the Conseil found that there were no foreclosure effects on mail consolidators. The rebates regime was found to treat all mailers equally, i.e. independently of whether they use the services of a consolidator or not. Furthermore, mailers would not be deprived of the incentive to use consolidators.

Since the rebates were calculated on values rather than volumes, the Conseil checked whether using a consolidator would result in lower rebates for mailers. If that were the case, the mailer would be better off by handing the mail directly to La Poste and by-passing consolidators. The Conseil demonstrated that the rebates did not have that effect.

Investigating the second question, the Conseil examined whether the rebates – as second degree price discrimination – could have negative effects in the mail distribution market. La Poste argued that there were no negative effects because at all the consumed quantities, whatever the level of rebates granted, prices covered the assigned costs. The extra consumer surplus helped La Poste in meeting the universal service obligation at the required price and quality levels.

In the third question about the consequences of excluding consolidators from the rebate scheme, the Conseil found that La Poste did not behave anti-competitively. This is due to the fact that for the rebates to make economic sense, La Poste must be able to discriminate against different categories of mailers. Granting rebates to consolidators would de facto allow small mailers to benefit from large mailer discounts, which would impact La Poste's revenues negatively. The Conseil then examined whether by discriminating between mailers and consolidators, La Poste's rebates regime could fall under the prohibition contained in Article 102(c) TFEU. The Conseil considered that this was not the case since mail senders and mail intermediaries were not similarly situated from the point of view of demand.

On 26 March 2008, the Court of Appeal dismissed an appeal by consolidators against a decision of a Court of First Instance, which had rejected the claim made by these intermediar-

⁷³ Opinion 07-A-17 of 20 November 2007.

ies that La Poste's rebates were anti-competitive. On 5 May 2009, the French Supreme Court confirmed the judgment of the Court of Appeal by ruling that consolidators are not to be considered as "customers" of La Poste with respect to mail handled on behalf of the senders.

In the opinion of the French Competition Council on the French La Poste volume rebates, the argument was that price discrimination between small and large mailers stimulates demand. This effect would be ruined if small mailers could achieve the same rebates by going through a consolidator under an "aggregated" rebating system. Thus, the competition authority argued that it was acceptable if consolidators did not receive the same rebates as large mailers.

It is worth comparing the opinion of the French competition authority above and the courts in relation to a recent ECJ ruling in *Vedat Deniz*.⁷⁴ The ECJ ruling provided an interpretation of how Article 12, indent 5 of the Directive should be applied. According to the Article, the special tariffs and conditions should be applied according to the principles of "transparency and non-discrimination". According to the ruling, third parties (consolidators) should be offered the special tariffs granted to (typically large) business customers on a non-discriminatory basis⁷⁵, cf. Box 4.2. Thus, the Court interpreted the Article 12, fifth indent, in favour of mail consolidators – which appears to be in contrast to the French decisions.

Box 4.2 Directive 2008/6/EC, Article 12, fifth indent, and the ECJ ruling in joint cases C-287/06 to C292/06

Directive 2008/6/EC, Article 12, fifth indent

- *whenever universal service providers apply special tariffs, for example for services for businesses, bulk mailers or consolidators of mail from different users, they shall apply the principles of transparency and non-discrimination with regard both to the tariffs and to the associated conditions. The tariffs, together with the associated conditions, shall apply equally both as between different third parties and as between third parties and universal service providers supplying equivalent services. Any such tariffs shall also be available to users, in particular individual users and small and medium-sized enterprises, who post under similar conditions.*

ECJ ruling in joint cases C-287/06 to C292/06

Several licensed mail operators in Germany were refused the special tariff by Deutsche Post for the delivery of pre-sorted mail. The argument Deutsche Post used was that the licence did not permit them to carry out other services, such as sorting. Following investigations by the Federal Cartel Office and the Federal Network Agency, as well as court cases in Germany, the case was referred to the ECJ. In March 2008, the ECJ ruled that "The Court held that the Directive had made express provision for this situation. Article 7(1) of the Directive, allowing Member States to reserve certain activities to the USP, does not cover the collection, pre-sorting and transport of mail to access points, such as sorting offices. Insofar as third parties provide such a service, they should be offered the special tariffs granted to business customers on a non-discriminatory basis."*

Source: Directive 2008/6/EC, consolidated version, Article 12, fifth indent. * The Law Societies (2008).

⁷⁴ European Court of Justice 6 March 2008, "Joint cases C-287/06 to C292/06".

⁷⁵ In the same case, the ECJ also established that Article 7(1) of the Directive, allowing Member States to reserve certain activities to the USP, does not cover the collection, pre-sorting and transport of mail to access points, such as sorting offices – therefore, USPs cannot deny discount on the basis of reserved area infringement.

However, the key to understanding the difference between the French and the ECJ rulings is whether the non-discrimination principle from Article 12 should apply to the different types of rebates that were given in these cases, i.e.:

- Rebates to compensate for work sharing (such as pre-sorting mail, as in the *Vedat Deniz* case);
- Rebates to stimulate demand (as in the *La Poste* case).

According to Gerardin (2010), “[a]lthough the language of the Court [ECJ] is ambiguous, the correct answer seems that Article 12 only covers discounts granted in return for preparatory services”. Consequently, Article 12 would not extend to rebates justified by demand stimulation – thus mailers or consolidators who do not do work sharing and do not stimulate demand could still be denied a rebate.

Denmark

In Denmark, the market for consolidation is important in the unaddressed items segment where ForbrugerKontakt competes with Post Danmark. Following a competition case in 2004, Post Danmark adopted a new price scheme which ensures equal access to rebates for mailers, consolidators as well as purchasing groups, which sustained competition in the market for unaddressed items.

ForbrugerKontakt competed end-to-end with Post Danmark in the unaddressed items segment. In remote areas, however, the firm had to use Post Danmark’s delivery network. In these areas, ForbrugerKontakt acts as a *de facto* “system 1” consolidator.

In 2004 the Competition Authority ruled against Post Denmark for abuse of dominance due to illegal rebates on unaddressed items. In February 2005, the Council approved a new pricing scheme for distribution of unaddressed items by Post Danmark. The Competition Council concluded that the new pricing scheme is fixed on objective criteria based on the underlying costs of the company. Danish consolidators were granted the same discounts as large mailers of unaddressed items.

The new pricing scheme encompassed all customers that supply in excess of 500.000 pieces of unaddressed mail per year (so-called major clients).

A condition for all the extra charges was that each and every mailer and purchasing association that deals with Post Danmark was treated as one customer (such that they were entitled to charges according to their total amount of orders). Post Danmark committed to distribute unaddressed mail originating from consolidators and purchasing associations under the same conditions as those granted to large mailers.

This commitment assured consolidators the same prices and terms as were applicable to other customers of unaddressed mail. Hence, even in the situation where consolidators do

not maintain nationwide distribution, they could use Post Denmark in the final leg of delivery. This was to maintain a competitive constraint on Post Denmark.

UK

In the UK, large mailers and consolidators are nominally treated in the same way. Royal Mail's price lists do not *a priori* discriminate against either, which is fine from a regulatory point of view. However, the pricing schemes are very complex and introduce territorial or zonal differences. In practice, this means that it may be easier for consolidators to access the rebates than large mailers, because consolidators are likely to have more sophisticated logistic (transport) capabilities than large mailers.⁷⁶

Sweden

The Swedish NRA has not formally handled any cases involving consolidators. However, there were discussions in the past and it still occasionally becomes an issue whether consolidators are to be treated equally to a single mailer.⁷⁷

Germany

Deutsche Post until 2005 refused to give discounts to consolidated mail, but following the ECJ ruling in the Vedat Deniz case, grants them since then.

4.7. IMPORTANT ENTRY BARRIERS

Interviews with large competing postal operators reveal the presence of important entry barriers throughout the EU27. Interviews with competitor postal operators from Denmark, Poland, the Netherlands and Spain, as well as European trade unions have focused on a number of common barriers, cf. Table 4.11. The most frequently cited barriers are the special VAT treatment of the national postal operator and the presence of a reserved area. There are also important barriers regarding specific provisions in certain national employment regulations. Last but not least, express carriers are generally concerned about the possibility of being considered a part of postal markets to a greater extent by NRA and thus falling under the scope of their regulation. In what follows, we discuss the barriers in detail.

⁷⁶ Interview with Almast Diedrich, Director, TNT Regulatory Division, Copenhagen, 1 June, 2010.

⁷⁷ Swedish NRA, cf. Country fiche Sweden in Appendix.

Table 4.11 Overview of barriers reported by competitor postal operators

Barrier	Case interview
<i>Legal barriers</i>	
VAT	Bring Citymail DK / InPost / UNIPost
Reserved area	Bring Citymail DK / InPost / UNIPost / UPS / European Express Association
National USO regulations	UNIPost / InPost / TNT Austria
National employment regulations	TNT Austria / Janton Distribution / Belgische Distributiedienst / UNI Europa / Austrian trade union representatives
National access to infrastructure regulation	TNT Austria / UPS / European Express Association
National licensing requirements	TNT Austria, Janton Finland
<i>Non-legal barriers</i>	
Market power of the incumbent	NRA assessment
Demographic and geographic characteristics	NRA assessment
Start-up costs	NRA assessment

Source: Interviews conducted by Copenhagen Economics: TNT Regulatory Division – Mr. Almast Diedrich (Copenhagen 1.06.2010) / InPost – Mr. Rafal Brzoska (Copenhagen 16.06.2010) / UNIPost – Mr. Pablo Raventos Saez (telephone 3.06.2010) / Bring Citymail – Mr. Jes Hebert (Telephone interview, 3.05.2010) / Belgische Distributiedienst 21.06 (telephone interview) / Janton – Mr. Istvan Denes (Telephone interview 2.09.2010) / UPS / European Express Association – Mr. Mark van der Horst, 14.09.2010 (Telephone interview)

VAT

The special treatment of national postal operators for VAT purposes is among one of the most commonly cited barriers to entry in the postal sectors by competitor postal operators.⁷⁸ The postal sector has been exempt from VAT since the 70s (Directive 77/388/EEC) and an exemption for postal operators providing public postal services is included in the Common VAT System Directive (CVSD). Recently, the ECJ ruling in the TNT - Post UK Ltd. case⁷⁹ has confirmed the status of this exemption to apply to public postal services, while it required VAT to be charged on competitive individually-negotiated products, cf. also chapter 7 for a description of the TNT – Post UK Ltd. case and a discussion of the economic effects of the VAT treatment of the postal sector.

While most national postal operators in Europe (with the exception of Finland, Slovenia, Sweden, Norway and Switzerland⁸⁰) continue to enjoy VAT exemptions for a certain part of their activities, exemptions are not applicable to any activities of competitor postal operators.

Although the spirit of the CVSD and the ECJ ruling is that the VAT exemption should not distort competition, our respondents have signalled that this may not always be the case in

⁷⁸ The effect of the VAT exemption as a barrier to entry into postal markets is relatively well documented in the literature:

- De Donder et al. (2009) study the pricing and welfare implications of changing a postal operator's VAT status.
- Crew et al. (2009) discuss the importance of VAT exemptions in the framework of the prospective study by PwC (2006).
- Dieke and Elixmann (2005) quantify the effect of VAT exemptions for postal operators on government tax revenue.

⁷⁹ Case C-357/07 TNT- Post UK Ltd.

⁸⁰ In these countries, the standard VAT rate is charged for all postal services provided by NPOs and private operators.

practice. In Denmark, the presence of a VAT exemption for Post Danmark was one of the contributing factors for the exit of the challenger, Bring Citymail, in January 2010⁸¹. In Poland, Poczta Polska provides the so-called “agglomeration shipment” which is a product targeted at business mailers with a volume exceeding 5,000 items dispatched from a single post office. Although this product competes with a similar offering provided by the competitor InPost, Poczta Polska does not charge the 22 percent VAT rate on its product.⁸²

Reserved area

The reserved area was introduced as a means of providing compensation to national postal operators when providing universal postal services. Although the size of the reserved area has been declining in recent years, and it is bound to disappear with the implementation of the Third Postal Directive, the reserved area has nevertheless been frequently cited as entry barrier.

The cases from Denmark and Poland show that the reserved area has been perceived as a significant obstacle for the functioning of alternative letter post operators following business models centred on the delivery of traditional mail.

There are at least two reasons why the reserved area is important:

- It concerns a very important part of the postal market (business correspondence) and has led to market exit in recent years;
- It will continue to exist until 31.12.2012 in postal markets with an extended deadline for the transposition of the Directive.

In January 2010, Bring Citymail withdrew from the Danish market citing the presence of the reserved area as the main reason⁸³ (in addition to the VAT treatment of the NPO). The business model of Bring Citymail was centered on the production and delivery of business-originated bulk addressed items in urban locations. Due to the importance of letters below 50g in the overall addressed items segment, the lack of possibility of delivering these letters meant that Bring Citymail operations failed to reach financial viability. With the uncertain legal situation surrounding the implementation of the postal Directive in Denmark in 2009⁸⁴, Bring Citymail decided to discontinue its operations in Denmark.

In Greece, the reserved area is a barrier to entry for new business as it does not allow competitor operators to provide integrated solutions to customers. With the upcoming liberalisation of the market, this factor will be removed or restricted, however (in 2012 only).

⁸¹ Interview with Jes Hebert, Bring Citymail, 3.05.2010.

⁸² NB. the case is primarily a predatory pricing case, where the VAT issue is an additional element. Interview with Mr. Rafal Brzoska, CEO InPost. Cf. also http://wyborcza.biz/biznes/1,100896,8135555,Pocztowcy_bez_bonusow.html

⁸³ In addition to the then unknown legislative situation regarding the timing for the disappearance of the reserved area as a part of compliance with the Third Postal Directive.

⁸⁴ Denmark prepared draft law transposing the Directive in June 2010.

The case of Poland shows that the reserved area is an entry barrier which can be challenged. In Poland, the competitor InPost decided to challenge the national postal operator in the addressed items market in spite of the presence of the reserved area. The reserved area on letters below 50g will continue to exist until 2013. To be able to deliver letters from the reserved area, InPost started to affix a company postage mark in the form of a metal seal on envelopes. Due to its weight, the postage mark *de facto* increases the item's weight above the 50g limit. The firm also began providing an official explanation for the use of the metal seal on its website⁸⁵. InPost list prices on single items are about 20-25 percent below those of the national postal operator. InPost continues to deliver letter post originally below 50g despite efforts from the national postal operator to stop this practice.

A barrier related to the reserved area is regulation which requires the delivery of mail under conditions that can in practice only be satisfied by the national postal operator. For example, in Spain courts are required to dispatch their orders to administrative bodies in all parts of the country by post. *De facto* this favours the national postal operator since no private firms are capable of covering the entire territory of the country. A similar situation favouring the national postal operator existed in Poland until late 2010, because business invoices sent by e-mail had to be protected by a certified e-signature. Due to the high cost of the e-signature certificate, firms had to send invoices by ordinary mail or send risk sending invalid unsigned invoices electronically. However, the Supreme Administrative Court recently ruled that invoices delivered electronically without e-signature are valid. According to Poczta Polska, the possible loss of revenue is estimated at around €50 million per annum – which shows the size of the market the NPO used to sustain due to the obsolete regulation.⁸⁶

Last but not least, the reserved area (as a means of receiving guaranteed support for operations through ensuring monopoly profits) – is considered an indirect barrier to competition from the point of view of express carriers, in the context of the increasing involvement of NPOs in this segment.

National USO regulations

The problems concerning the regulation of USO as identified by our respondents concerned the financing method, the lack of approval of cost calculation methods, as well as designating the USP for a long period of time.

Regarding the financing aspects of the USO, the most frequently cited problem concerned the lack of legal certainty surrounding the possible mechanisms of financing that can be de-

⁸⁵ http://www.inpost.pl/?id=128#multicontent_c377-2. InPost gives the following reasons: The national postal operator has a monopoly on the issuance of postage marks in the form of stamps – therefore competitors must design alternative means of documenting the postage fee. Furthermore, the seal has a protective function; it provides information about the operator to users of mail and serves as a marketing gadget.

⁸⁶ http://wyborcza.biz/biznes/1,100896,8135553,Poczta_Polska_straci_200 mln_jesli_fiskus_pozwoli.html

ployed under the conditions that the USO makes a loss – as well as the possible extent of contributions to be paid by private firms.

In Austria, the draft Postal Market Act foresees compensation to the universal service provider in case the net cost of providing USO represents an unreasonable financial burden on the USP. The main design elements of the compensation scheme are the following:

- *“(...) net cost shall be deemed an unreasonable financial burden if they exceed 2 percent of the universal service provider’s overall cost.” (Article 13 PMA⁸⁷)*
- *“Operators of licensed postal services with annual turnover of more than one million euro in the area of activity falling under the license application shall contribute to the compensation fund’s financing and administration proportionate to their market share.” (Article 14 PMA)*
- *“The relevant market share shall be based on the relationship of the respective turnover to the sum of the turnover of all liable contributors in the relevant market of licensed postal services in this Federal Act’s scope of application, disregarding the universal service provider’s turnover in the universal service sector.”*

From the point of view of the Austrian Post, the current setup implies that *“[a]ssuming that Austrian Post continues to have a significant market share even after the full liberalisation of the postal sector, it will be obliged to assume the lion’s share of the net costs of USO and administering the fund.”*⁸⁸ However, from the point of view of a private operator, TNT, this arrangement serves as a tax on private operators in Austria. TNT has mentioned this as one of the reasons leading to its withdrawal from the Austrian market.⁸⁹

In Spain, the recently drafted postal law contains provisions setting up a USO fund to which competitor postal operators are required to contribute if the provision of the USO by the national postal operator produces a deficit. In Poland, the issue of USO financing has not yet been clarified by law. Therefore, it is not known whether a compensation fund will be created and if so, what its size will be and who will be required to contribute to it. This lack of regulatory certainty has been mentioned as an important barrier to investment by the largest competitor, InPost.

The above should also be seen in a context of largely absent cost calculation methodologies. Thus, it appears a questionable practice to design rules regarding the organisation of USO compensation funds without having approved any methods for calculating the cost of USO by the NRAs.

Express carriers point to the fact that in the countries where USO compensation funds are being considered, the funds are typically designed to compensate for the entire net cost of

⁸⁷ For the English version of the draft law, cf. http://www.rtr.at/en/post/PMG/PMG_english.pdf.

⁸⁸ http://www.post.at/en/footer_about_us_investor_relations_facts_figures_risk_management.php

⁸⁹ Interview with A. Diedrich, Copenhagen, 1.06.2010.

the USO, while the option to provide partial compensation is not used, and often they require the participation of competitor postal operators.

National employment regulations

The introduction of sector-wide employment regulation might serve as an entry barrier if the new standards imposed are based on above-market wages and employment conditions. We observe several countries where sector-wide standards have been, or are about to be implemented in national law and where this has had consequences for the entry decisions of new operators. Below, we summarise how employment regulations have affected alternative operators. We provide a detailed analysis of the postal labour markets in chapter 6.

In Austria, the new postal law, coming into effect on 1 January 2011, requires all licensed operators to comply with the relevant collective labour agreements.⁹⁰ Potentially, this requirement can mean that the business model applied by new operators (delivery performed by self-employed workers) may be challenged. We find indications that private operators indeed expect an increase in labour costs as a result of the new provision. For instance, in January 2010 Redmail (a subsidiary of TNT, previously active in the distribution of newspapers and unaddressed items) announced that they will focus entirely on the distribution of newspapers in the future. According to representatives from the Austrian trade union VIDA, the main reason behind this decision was an expectation that the use of self-employed workers in the delivery of addressed items will no longer be possible under the new legal regime.⁹¹

In Belgium we observe a similar development, where the current draft legal proposal pending for the Parliament foresees that only transport of mail items can be performed by self-employed workers. Collection, sorting and delivery have to be performed by employees on a payroll. According to a commercial manager at Belgische Distributiedienst (BD), they have considered entering the market segments which will be liberalised as from 1 January 2011. However, due to strict employment requirements, BD will instead maintain its focus on delivery of unaddressed items.⁹²

In the Netherlands, an administrative decree (foreseen to come into effect on 1 January 2011) has been issued by the Government, requiring new operators to apply a collective labour agreement with a phase-in model of ordinary employment contracts. This requirement will, according to a representative from the trade union AbvaKabo, most likely make it impossible for operators like Sandd, Selekt Mail and Netwerk VSP, to maintain their low-price model. To be able to pay the higher labour costs, they will either be forced to increase prices, or to exit the market.⁹³ This claim is confirmed by the low cost operators, stating that a re-

⁹⁰ Cf. § 27(2) point 2 of the new Austrian postal law. While the prohibition on the use of self-employed is not clear from this provision, at least one collective agreement in the sector contains a prohibition on the use of self-employed. Cf. Chapter 6 for an overview of the collective sector agreements in Austria.

⁹¹ Cornelia Berger, policy officer at UNI Europa and Austrian trade union representatives Verena Wiesner and Harald Voitl, 9 July 2010.

⁹² Interview with Marloes Otten, commercial manager at Belgische Distributiedienst, 21 June 2010.

⁹³ Interview with Peter Wiechmann, National officer postal sector Abvakabo FNV, 19 July 2010.

quirement to apply ordinary labour contracts to 100 percent of the workforce would lead to bankruptcy.

In Finland, an employers' association dominated by the NPO Itella and the labour union of postal workers (PAU) entered into a new, nationally binding collective labour agreement. As a response, the competitor Janton (active in the distribution of unaddressed items) has formed its own employer association and signed its own collective labour agreement with its employees. This has implied a wage increase for the Janton's workers, cf. Box 4.3

Box 4.3 Collective labour agreements in Finland

Like many other postal operators competing with a national postal operator, the Janton Distribution Group in Finland has developed an alternative business model based on a low-cost labour strategy to compete in the unaddressed segment. It includes a system with two types of deliverers: professional runners and typical runners. The key benefit of this arrangement is that the "typical runners" do the work much more cheaply than the "professional runners", who are working on a full time basis.

Janton's typical runners are paid on a per-piece basis. The pay is low by Finnish standards but the work is very flexible, allowing the runner to decide on when in the day to do the work and to choose not to receive any work for a specified period. Janton's employees have conventional employment contracts and are covered by social security. However, until recently they were not covered by a collective labour agreement.

In 2007, TIKLI (an employers' association dominated by the NPO Itella) and PAU (the labour union of postal workers) entered into a new, nationally binding collective labour agreement (the TIKLI-PAU CLA). A nationally binding agreement implies that any operator within that sector, who is not already covered by another collective labour agreement, needs to comply with the nationally binding one. The new TIKLI-PAU CLA defined a new class of workers who distribute only unaddressed items and it determined what the minimum payment to such workers should be – a level above that applied by Janton to its typical runners. Neither Itella nor other members of TIKLI used workers who only distribute unaddressed items, and PAU had no or just very few members doing such work.

The effects of the conditions in the TIKLI-PAU CLA are estimated by Janton to increase their direct labour costs by 30% to 50%. As a response, Janton has formed its own employer association and signed its own collective labour agreement with its employees. This has implied a wage increase for the Janton's workers.

Source: Istvan Denes, Managing Director, Janton Distribution Group, 24 June 2010

National market access regulation

Market access regulation has not been mentioned frequently as a significant barrier. However, even in the case where access is ensured by regulation, the key issue from the point of view of competitor operators is the cost of access. In cases where costs of such access are high, competitors tend to bypass the need to obtain access to a particular element of the national postal operator's value chain and innovate into alternative business models. Regulation of access cannot be substituted by innovation in all cases, however.

An example has been provided by TNT in Austria. It regards lack of access to certain "older-style" multi-mailbox installations in multi-storey apartment buildings. This is an obstacle for the competitor operator in the market for newspaper delivery. The market requires the ability to distribute in all parts of the country, thus physical access to delivery boxes is important. Another example referred to by the Austrian NRA is access to wholesale services (access to distribution points). The same problem was expressed by express carriers, where lack of access to buildings makes it impossible to leave a message regarding a failed delivery attempt to a recipient who is not at home – although NPO postmen are able to do so.

National licensing requirements

Licensing requirements have not often been referred to as significant barriers to entry. Potential problems related to licensing require the ease of compliance with licensing requirements and waiting times for approval of the licenses. Licensing may be a problem in countries like Hungary or Estonia which require individual licenses on all services within the USO⁹⁴ as well as general authorisations for services outside the USO area. In Greece, licenses are required for the delivery of unaddressed items which are not included in the definition of mail items in the understanding of Article 2 of the Directive. In Finland, providing the USO involves the “threat” of facing a fine for non-performance, but this is not considered credible by potential competitors.⁹⁵ There are also a few countries which require individual licenses for services provided outside the universal service obligation area. In some markets, licensing is a formality and compliance with the requirements does not generate a significant burden on entrants. Licensing requirements can be burdensome if applied on services outside the universal area. 13 Member States require general authorisation of all postal services. Several Member States require general authorisation for the provision of certain non-universal services. Individual licenses are required for the provision of letter delivery and express services in Denmark, cf. Section 3.3 for details.

In Finland, the law specifies that a universal service license holder must accept a penalty for failure to provide universal services of specific quality. However, a competitor operator, Janton, does not believe that the NRA would exercise the right to invoke the penalty on an alternative operator, at least in the early stages of activity. However, the probability of the penalty would increase with the national postal operator choosing to exercise pressure on the NRA, which is also considered unlikely in practice. Janton’s lack of interest in providing the universal services in Finland is based more on other considerations, such as the necessary level of investment, and not the threat of fine.

Market power of the incumbent

A significant entry barrier remains the strong market position of the incumbent postal operator. In many countries, incumbents possess long-established customer relations. This implies that an entrant must devote substantial resources on advertising to establish itself as a reliable alternative, even if market entry is local or regional. We note that incumbents retain strong positions even in countries where competition has existed for a relatively long time. For instance, in the Netherlands, the reputation of the incumbent as a high quality service provider is difficult to match for entrants. A similar situation exists in Sweden, where the strong position of the incumbent can be connected to the exercise of market strong market position.⁹⁶

⁹⁴ In Hungary this includes: Basic letter post, bulk letters, direct mail, periodicals, non-priority letter post, basic parcel post, bulk parcels. In Estonia, this includes: basic letter and basic parcel post.

⁹⁵ Interview with Janton, 2.09.2010.

⁹⁶ NRA Sweden.

Demographic and geographic characteristics

Demographic and geographical characteristics may be substantial barriers to nationwide entry. Competition tends to be challenged in sparsely populated countries such as Sweden or Finland, where no other postal operator than the incumbent has been able to establish nationwide postal operations despite relatively many years of market opening.

Costs and economies of scale

On the cost side, postal operations are characterized by economies of scale, particularly resulting from the fixed costs of maintaining infrastructure (especially delivery, and collection).

Furthermore, sunk costs of setting up infrastructure and the fact that the incumbent already has one, can function as an entry barrier. The size of start-up investment costs has been identified as an entry barrier in Greece, though it is likely that the same problem is present in essentially all postal markets where the incumbent has a strong position. However the significance of this entry barrier can be diminished in practice by competitor companies selecting business models which are not based on replicating the business model of the incumbent. As such, they do not require high start-up costs, for example, but can exploit economies of density by operating in urban environments.

Chapter 5 UNIVERSAL SERVICE OBLIGATION

5.1. MAIN FINDINGS AND RECOMMENDATIONS

A postal service is a vital part of national infrastructure and is considered a service of general economic interest (SGEI), i.e. an economic activity of particular importance to citizens, since postal services connect businesses to consumers and governments to citizens. To ensure that all consumers and businesses have access to postal services, there has been a long tradition of imposing obligations to provide countrywide postal services (universal service obligation – USO).

In recent years the USO has been much debated among regulators and researchers. The reason for this is twofold:

1. Postal liberalisation removes the reserved area as a source of finance of the USO. This has led to a debate about the net cost of the USO, if any, and how the USO should be financed.
2. The evolving e-substitution and the resulting changes it required gives rise to a debate about the need for a USO and whether it should be revised.

In this chapter we study these two dimensions by examining the current regulation of the USO, providing a literature review, and by conducting a pilot study to assess the benefits which consumers derive from the USO.

Our overall conclusion is that a thorough study of the need for a USO seems warranted. From a policy perspective, the definition of the USO should rely on a cost benefit approach, so that the USO includes services which are important to consumers but not unduly costly to provide. Both the costs and the benefits of the USO are likely to change in the coming years due to declining mail volumes, increased competition and increased e-substitution. We therefore recommend analyses on both national and EU level on the need for a USO. Our overall conclusion is based on four conclusions:

Our first conclusion is that USO definitions in Member States seem to rely heavily on tradition instead of customer needs. We base this conclusion on two contrasting observations. On the one hand, the USO seems to remain the same over time. The definition of the USO is largely unchanged compared to the previous studies of main developments, and the minimum service level stipulated in Article 3 of the Postal Directive is largely unchanged. The USO covers the same products as before and requires the same number of delivery days as before. On the other hand, the USO differs between countries. Bulk letters, direct mail, periodicals and non-priority letters are only included in the USO in around two thirds of countries. Similarly, the number of delivery days per week differs across countries. The cross-country differences can only be explained to a certain extent by differences in customers' preferences.

Our second conclusion is that to date, financing of the USO does not seem to pose a major challenge in most countries. Only a few countries have actually estimated net USO costs and

they typically find small net costs, not more than 5 percent of total costs. The exceptions to the rule are Spain, Malta, Slovenia and Iceland where the USO costs are reported to be very high. However, apart from the Ministry of Development acting in the capacity of the NRA in Spain, these high estimates have not been approved by the NRAs.⁹⁷ In the future, declining mail volumes may change this picture and force more countries to compensate the universal service provider (USP) for the USO in some way.

Our third conclusion is that studies of the need for a USO should be based on methods which reveal how much respondents are willing to pay for the USO benefits; otherwise there is a risk that the respondents respond that they want all the benefits and while at the same time avoiding all extra costs. We have set up and tested a method for estimating the willingness to pay for the USO.

Our fourth conclusion is that our pilot study on willingness to pay indicates that the need for a USO is primarily focussed on ensuring access to post offices. Business customers are not willing to pay for maintaining post offices but post offices are highly valued by residential customers. However, residential customers do not constitute an important revenue stream for postal operators. Hence, it is likely that postal operators will supply too few post offices unless the USO ensures sufficient access to them. On the other hand, there seems to be a strong demand from business customers with strong buyer power who want to ensure sufficient frequent mail delivery. We stress that our findings from the pilot study are only indicative and that more thorough analysis based on stronger data foundations may lead to other conclusions. We also stress that the results will depend on the specific country in question.

Finally, based on the experiences gained from this study, we have developed a number of recommendations on how to study the need for a USO. The most important recommendation is that studies should not presume that respondents can decipher how changes in USO will affect the service level they experience. This is because the effect of removing an obligation depends on commercial considerations of the postal operator. An obligation may not affect service level at all. Rather, we recommend that studies of willingness to pay are based on well-specified scenarios for actual service levels under different USO regimes. Such studies can help politicians make informed decisions about the future scope of USO.

5.2. SECTOR OVERVIEW

The universal service obligation (USO) ensures one delivery of postal items to the home or premises of every natural or legal person in the Member States of the EU on at least five days a week, as contained in Article 3 of the Postal Directive. The USO ensures that urban and

⁹⁷ The Ministry of Development acting in the capacity of the NRA in Spain has approved the calculation (answer from July 2010). The NRA in Iceland has not approved the calculation. In Malta, the calculation has been made internally by the USP and presented to the NRA. It is unclear whether Slovenian NRA has approved the calculation – the USP informed us that this is the case, while the NRA informed us that there will be approval in 2010.

rural citizens and businesses have access to certain baseline services on the same conditions. Services within the USO must be provided countrywide on permanent basis at specified minimum quality targets and at affordable prices.

Universal service providers

In all countries except for Germany, the provision of universal services is ensured by designating a universal service provider (USP) with a universal service obligation (USO), cf. Table 5.1.

Table 5.1 Designated universal service providers (USPs)

Country	Name
Austria	Österreichische Post AG
Belgium	Bpost
Bulgaria	Bulgarian Post
Cyprus	Cyprus Post
Czech Republic	Česká pošta, s.p.
Denmark	Post Danmark A/S
Estonia	Eesti Post Ltd
Finland	Itella Corporation
France	La Poste
Germany	None (USP generated by market forces)
Greece	Hellenic Post
Hungary	Magyar Posta Zrt
Ireland	An Post
Italy	Poste Italiane S.p.A.
Latvia	Latvijas Pasts
Lithuania	AB Lietuvos paštas
Luxembourg	Entreprise des Postes et Télécommunications (EPT)
Malta	Maltapost Plc
Netherlands	TNT Post
Poland	Polish Post
Portugal	CTT Correios de Portugal, S.A
Romania	Posta Romana
Slovakia	Slovenská pošta, a. s.
Slovenia	Pošta Slovenije, d.o.o (Designation or Public Procurement)
Spain	Correos
Sweden	Posten AB
United Kingdom	Royal Mail Group Ltd
Iceland	Iceland Post
Liechtenstein	-
Norway	Posten Norge AS
Switzerland	Swiss Post

Source: Country fiche appendix (Indicator x.5.1)

In Germany, where there is no designated USP, the Postal Act states that universal service is provided by all postal operators. However, there is no formal obligation that the universal service is provided by a specific operator. The regulator will only interfere if the market does

not provide universal services on its own.⁹⁸ To date, market forces have ensured universal services without the need for intervention from the regulator's side.

National regulation of the USO

Only ten out of 31 countries have passed new legislation which includes regulation of the USO. The immediate consequence of this is that 21 countries have not redefined the USO. In the countries that have passed new legislation there have only been minor changes in the definition of the USO: Bulgaria has excluded direct mail from the USO, Estonia has excluded periodicals and Slovenia has reduced the weight limit for USO parcels from 20 to 10 kg, cf. Table 5.2.

⁹⁸ In case the Universal Service is not appropriately or adequately provided, the NRA may oblige a market-dominating licence-holder to provide the relevant universal service or following public procurement.

Table 5.2 Latest law that defines USO (year of enactment)

Country	Scope	Quality	Rates	Revision in scope or rates since 2008
Austria	2009	2009	2009	No
Belgium	2002	2002	2002	No
Bulgaria	2000, 2009	2000, 2009	2000, 2009	Direct mail excluded from USO
Cyprus	2004	2005	2004	No
Czech Republic	2008	2008	No	No
Denmark	Ministry:2004 NRA: 2005	Ministry:2004 NRA: 2005	Ministry:2004 NRA: 2005	No
Estonia	2009	2009	2009	Periodicals excluded from USO
Finland	2001	2001	2001	No
France	2007	2009	2009	No
Germany	2000	2000	2000	No
Greece	1998	2010	No – draft law under consultation	NRA can no longer set rates for USP
Hungary	2004	2004	2004	No
Ireland	2006	2004	2002	No
Italy	1999	1999, 2009	1999	No
Latvia	2009	2010	2005, 2010	Periodicals included in USO From ex ante to ex-post price regulation
Lithuania	2004, 2010	2004, 2007	2007	No
Luxembourg	2000	2001	No regulation	No
Malta	1975, 2004	1975	2004	
Netherlands	2009	2009	2009	No NRA can no longer cancel unlawful rates
Poland	2003	2004	2003 (Ministry guidelines)	No
Portugal	1999	2008	2008	No
Romania	2002	2002	2002	No
Slovakia	2004	2004	2004	No
Slovenia	2009	2009	2009	Limit for parcels in USO down from 20 kg to 10 kg
Spain	1998,1999	1999	2001	No
Sweden	2010	2010	2010	Minor revisions in 2010
United Kingdom	No law, USO decided by NRA	No law, USO decided by NRA	No law, USO decided by NRA	No
Iceland	2003,2009	2003,2009	2005	No
Liechtenstein	1999, 2000	1999, 2000	1999	No
Norway	1997	2007 (postal license)	No*	No
Switzerland	List of USO products (not a legal document)	No law	No law	-

Note: In Norway, the Ministry has right to approve rates on monopoly products, applying to post items.

In Switzerland, universal services are specified by the USP and approved by the Ministry. The list is not considered as a legislative document. Quality target is defined by Government/ Ministry, NRA defines quality measurement. Prices in the reserved area are approved by the ministry. The authority of price surveillance (M. Prix) is consulted before decision.

UK: There is no legislation concerning various aspects of USO. The NRA, Postcomm, defines the USO through its licensing regime

Source: Country fiche appendix (Indicator x.2.1)

Our comparison with the definition of the USO in the previous studies of main developments reveals that the overall regulation has changed very little. Changes are few and minor.

As an example, no country has changed the required number of deliveries per week. This indicates that the USO definitions are very stable over time.

Quality regulation

Regulating quality plays a key role in the USO. Almost all NRAs monitor and report annual service levels, and two thirds can fine the USP or impose other remedies if the requirements in the USO are not met, cf. Table 5.3.

Table 5.3 Legal mechanisms to ensure quality of universal service

Question	Answer	No. of countries	Countries
NRA sets monitoring standards?	Yes	24	AT, BE, BG, CY, CZ, DK, DE, HU, IE, LV, LU, MT, PO, PT, RO, SI, SK, ES, SE, UK, IS, LI, NO, CH
	No	7	EE, EL, FI, FR, IT, LT, NL
Annual measurement of quality of service?	Yes	29	AT, BE, BG, CY, CZ, DK, EE, EL, FI, FR, HU, IE, IT, LI, LT, LU, MT, NL, PO, PT, RO, SI, SK, ES, SE, UK, IS, LI, NO, CH
	No	2	DE, LV
Annual publication of quality of service monitoring results?	Yes	27	AT, BE, BG, CY, CZ, DK, EE, EL, FI, FR, HU, IE, IT, LT, MT, NL, PO, PT, RO, SI, SK, ES, SE, UK, IS, LI, NO, CH
	No	4	DE, LV, LU, LI*
NRA can fine USP(s)?	Yes	20	AT, BE, BG, CY, CZ, EE, FR, HU, IT, LT, LV, MT, NL, RO, SI, SK, ES, SE, UK, NO
	No	11	DK, DE, EL, FI, IE, LU, PO, PT, IS, LI, CH
NRA can impose other remedies?	Yes	21	BE, DE, EE, EL, FI, FR, HU, IE, LV, LU, MT, NL**, PO, PT, RO, SI, SK, SE, IS, NO, CH
	No	10	AT, BG, CY, CZ, DK, ES, IT, LT, UK, LI

Note: *LI: reports to the government, **NL: administrative measures

Source: Country fiche appendix (Indicator x.2.6)

Scope of USO

One dimension of the USO is the product dimension, i.e. the products that are defined as USO products. All countries include basic letter post and basic parcel post according to the USO definition. Around two thirds also define bulk letters, direct mail, periodicals, and non-priority letters as USO products. Only one third of countries define bulk parcels as USO products, cf. Table 5.4.

Table 5.4 Services ensured as universal services under national law

Service provided as universal	No. of countries	Country names
Basic letter post	31/31	AT**, BE, BG, CY, CZ, DE, DK, EE, EL, FI, FR, HU, IE, IT, LI, LT, LU, LV, MT, NL, PO, PT, RO, SI, SK, ES, SE, UK, IS, LI, NO, CH
Bulk letters	20/30	AT**, BE, CY, DK, EL, ES, FR, HU, IE, IT, LT, LU, LV, MT, PT, RO, SE, SK, UK, IS
Direct mail	16/30	AT**, BE, CY, EL, FR, HU, IE, LU, LV, MT, PT, RO, SK, UK*, IS
Periodicals	16/31	AT**, BE, CY, DE, EL, FR, HU, LU, LV, MT, PT, RO, SI, IS, LI, CH
Non-priority letters	21/31	AT**, BE, BG, DK, EE, EL, FI, FR, HU, LT, LU, LV, PO, PT, RO, SE, SK, UK, LI, NO, CH
Basic parcel post	31/31	AT**, BE, BG, CY, CZ, DE, DK, EE, EL, FI, FR, HU, IE, IT, LI, LT, LU, LV, MT, NL, PO, PT, RO, SI, SK, ES, SE, UK, IS, LI, NO, CH
Bulk parcels	9/29	AT**, BE, EL, HU, LT, LU, MT, SK, CH

Note: *UK: Direct Mail is not a service ensured as universal service by law but the products used are part of the USO (bulk mail)

For bulk letters, Czech Republic and Germany did not provide an answer.

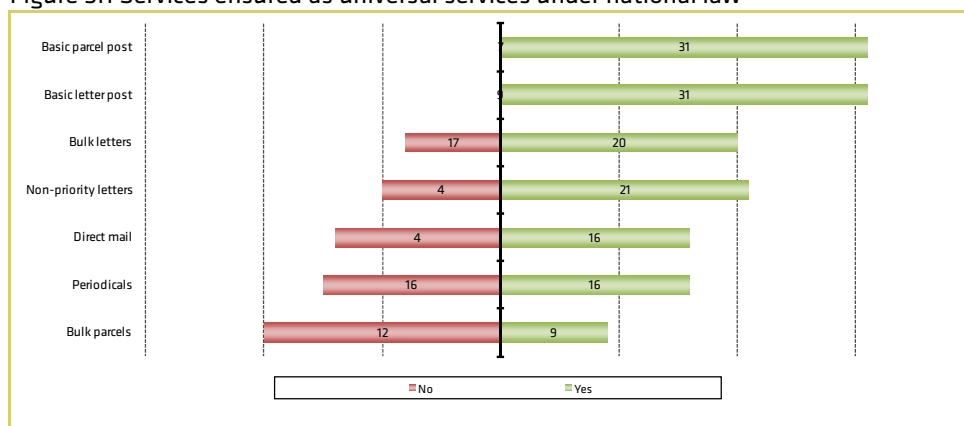
For direct mail, Germany did not provide an answer.

For bulk parcels, Czech Republic and Portugal did not provide an answer.

**In the case of Austria, according to § 3 Z 6 PMG distribution centres are not considered as access points, so all postal items that are consigned at distribution centres will be outside of universal service according to § 6 PMG. This may create potential problems with the definition of services within the universal service area.

Source: Country fiche appendix (Indicator x.2.4)

Figure 5.1 Services ensured as universal services under national law



Note: Number of countries including each product in USO

Source: Country fiche appendix (Indicator x.2.4)

Another dimension of the USO is that of time, i.e. how fast and how frequent the mail must be delivered. Only six countries require six delivery days per week. Hence, most countries only impose the minimum requirement stipulated in the Directive, i.e. five days per week. In seven of the countries where the USO is only five days, the NPO has chosen to deliver mail six days a week. The same is true in Germany where the USP is generated by market forces, c.f. Table 5.5.

Table 5.5 Frequency of delivery for USO

Actual	Required by law	
	5 days / week	6 days / week
5 days / week	18 countries AT, BE, BG, CY, CZ, FI, EL, HU, IE, LU, PL, PT, RO, SK, SE, IS, LI, CH,	0 countries
6 days / week	8 countries EE, IT, LV*. LT*, MT, SI*. ES*	5 countries DE, DK, FR, NL, NO, UK

Note: * Certain exemptions apply

Source: Ecorys (2008) and Copenhagen Economics

5.3. USO COSTS AND FINANCING

The third Postal Directive specifies that the USP can be compensated if the net cost of the USO represents an unfair financial burden. The Postal Directive defines the net cost of the USO⁹⁹ as the difference between the net cost of the universal service provider with and without the universal service obligation:

“The net cost of universal service obligations is to be calculated, as the difference between the net cost for a designated universal service provider of operating with the universal service obligations and the same postal service provider operating without the universal service obligations. The calculation shall take into account all other relevant elements, including any intangible and market benefits which accrue to a postal service provider designated to provide universal service, the entitlement to a reasonable profit and incentives for cost efficiency.”

Source: Directive 2008/6/EC of the European Parliament and of the Council of 20 February 2008, Article 1 (25) Annex 1, Part B.

This implies the comparison of a universal service provider fulfilling the universal service obligations with that same provider placed in a hypothetical situation in which they are free to determine their postal services on a purely commercial basis.

Hence, to be able to measure the full cost of implementing a USO, it is necessary to establish the costs that any designated universal service provider (USP) would have chosen to avoid had there been no USO.

The European Committee for Postal Regulation (CERP) has published guidelines for calculating the net cost of the universal service obligation.¹⁰⁰ These guidelines recommend that Member States use a method called the ‘commercial approach’, which was developed by Co-

⁹⁹ See above L52/19.

¹⁰⁰ CERP, Working Group Economics PT Universal Service and its Financing, *Guidelines for calculating the Net Cost of the Universal Service Obligations*, 5 September 2008.

penhagen Economics¹⁰¹ as a practical and feasible way of implementing the text of the Postal Directive.

The commercial approach method involves five steps. *First*, determine whether a particular service is likely to incur net costs or not. *Second*, calculate the incremental costs of that service. *Third*, calculate the (foregone) incremental revenues of that service. *Fourth*, estimate the benefits of the USO. *Fifth*, calculate the net costs of the service as the incremental costs minus the incremental revenue. If the resulting net cost is positive, the USO incurs net costs for the postal provider. The commercial approach is further described in Box 5.1.

¹⁰¹ Copenhagen Economics (2008), "What is the Cost of Post Danmark's Universal Service Obligation?"

Box 5.1: The commercial approach to estimating the net cost of the USO

Step 1: What would the USP do if there were no USO?

We point to five concrete questions that can be used to separate the burdensome elements of the USO from the elements of the USO that would be provided for commercial reasons. The five simple questions are:

Table 5.6 Five questions to determine relevant barriers in the USO

Indicator	Interpretation
1. Does the NPO provide a higher service level than required by the USO?	If the service level is significantly higher than required, the restriction is not binding.
2. Do competitors provide higher service level than what the USO demands from the NPO?	If competitors without USO provide a significantly higher service level, the restriction is not binding as high service is apparently commercially viable. The market will provide universal service for free.
3. Do NPOs in other countries with lower USO provide the service?	If NPOs in other countries with lower USO requirements provide the service voluntarily, it is not likely to be a burden – conditional on differences in postal markets.
4. Will the NPO be restricted by the competition law?	The NPO will remain dominant in many postal markets and thus be restricted by the general competition law. Hence, only additional USO requirements should be considered.
5. What are the pros and cons of providing the service?	Gives a qualitative list of arguments for and against reducing the service level if the USO disappears.

Note: A similar approach may be applied for input regulations, if this is relevant for the USO in question.

Source: Copenhagen Economics (2008).

The more frequently the answer is “yes” to the questions above, the less likely it is that the particular element of the USO is a real burden. It is important to combine the different indicators to assess whether the constraint is binding. For example, Indicators 1 and 2 may show high service levels because the service provider must use a buffer to meet the requirements.

Step 2: Calculate the cost the USP would save if there were no USO

In essence, the question is: How much could the postal operator save if the services or the user groups identified in step 1 were no longer served?

Step 3: Calculate how much the revenue of the USP would decrease if certain USO services were abolished. The third step is to calculate the income (revenue) that the USP would lose if it gave up the services which are only provided due to the USO. It is useful to divide the effect into a quantity effect and a price effect.

The quantity effect is the change in quantity of products only provided under USO and the other products provided by the USO.

- If the products are substitutes, demand will move to other products offered by the USP. This will partly offset the revenue loss from the products that are not offered in absence of a USO. An example would be extra mail delivered Mondays if the USP does not deliver mail on Saturdays.
- If the products are complements, demand for other products will also decrease if some of the USO products are no longer provided. An example would be banks' substitution to emails for all customers if the postal service to their customers in rural areas is reduced.

Thus, it is essential to consider whether other services provided by the USP are complements or substitutes.

Step 4: Estimate intangible benefits of USO

The Postal Directive clarifies that the net cost of the USO should take account of any intangible benefits. Such benefits could for example include: Opportunity to offer a state-controlled minimum quality; customer goodwill due to the USO; exclusive right to issue stamps; exclusive right to use royal logos; VAT exemptions determined by the USO.

Step 5: Consider whether there is an unfair burden

If after the four steps there is still a net cost there it is necessary to consider whether this represents an unfair burden on the universal service provider.

Source: CERP (2008) and Copenhagen Economics (2008)

USO cost estimates and calculation methods

Our questionnaires to NRAs reveal that most countries have not estimated the net cost of the USO. The net cost has been estimated in 10 countries. In these countries the net cost of the USO has been estimated at between 0 and 5 percent of turnover. Hence the estimates generally show a modest net cost of the USO. The exceptions are Spain¹⁰², Iceland¹⁰³, Slovenia¹⁰⁴ and Malta¹⁰⁵.

Table 5.7 Cost of universal service obligation and method for its calculation

USO costs (percent of revenue)	NRA description of method for calculation	Countries	Calculation method approved by NRA?
Confidential	Accounting separation	IT	Yes
0	No evidence of cost according to NRA	BE**, IE	BE: Yes, IE: No
1.6	Burden of post offices. Avoidable costs comparing an optimized post office network with current network.	CH	Yes
3.8	The Net Avoided Cost (NAC) method*	HU	Yes
4.3	"Alternative Commercial Strategy"-model	NO	Calculation of reserved area profit shall be approved by the NRA.
5.2 in 2009 (1.3 in 2008)	Full costing with activity based costing	EL	Yes
10	Calculation of additional cost of providing universal services compared to costs of universal services in capital area	IS	No
12	Method designed by National Economic Research Associates, approved by NRA	ES**	Yes
39	Activity based costing – Fully allocated cost account	SI	USP: Yes NRA: The system will impose approval of NRA
69	Activity based (volume driven costs)	MT	USP: Explained to NRA
Not available		AT, BG, CY, CZ, DK, DE, EE, FI, FR, LT, LU, LV, NL, PO, PT, RO, SE, SK, UK, LI	

Note *Calculated by the USP / NRA has not estimates cost yet and does not have a method available.

Source: Country fiche appendix (Indicator x.2.8)

We have not received detailed descriptions of the calculation methods. Therefore, we cannot assess whether the calculation methods are in accordance with the Postal Directive or not. However, based on the descriptions provided by the NRAs, it appears that the EEA countries of Norway, Switzerland and Iceland use methods comparable with the method outlined in the Postal Directive. On the other hand, many EU Member States use methods that do not seem to be in accordance with the method defined in the Postal Directive: Italy uses separate accounts, while Greece, Malta and Slovenia use fully allocated costs based on activity based costing. The only EU Member State that seems to use a method in accordance with Postal Directive is Hungary (using net avoidable costs).

¹⁰² The NRA in Spain has approved the calculation.

¹⁰³ The NRA in Iceland has not approved the calculation.

¹⁰⁴ It is unclear whether Slovenian NRA has approved the calculation – the USP informed us that this is the case, while the NRA informed us that there will be approval in 2010.

¹⁰⁵ In Malta, the calculation has been made internally by the USP and presented to the NRA.

Compensation methods

Currently, most countries use a reserved area to compensate for the USO. When the reserved areas are removed as a result of the liberalisation process, this source of finance disappears. A large number of countries have prepared for this by establishing a compensation fund. However, in many of these countries the compensation fund is not yet activated. The compensation funds will only come into play if the USO turns out to be an unfair burden in the future. Finally, six countries may use direct state subsidy through public procurement, cf. Table 5.8.

Table 5.8 Financing method for net cost of USO

Method	No. of countries	Countries
Reserved area	24	BE, BG, CY, CZ, DK, EL, ES, FR, HU, IE, IT, LV, LT, LU, MT, PO, PT, RO, SI*, SK, IS, LI, NO, CH
No reserved area	7	AT, EE, FI, DE, NL, SE, UK
Compensation fund	12/ 27	AT**, BE, CY, DE, EE, ES, FR**, IT, NL***, PT, SI, IS
Public procurement	6 / 27	EE, LV, SI****, IS, NO, SE

Note: *SI: until 2011, ** Foreseen by law but not activated, ***NL: Will be established if necessary, ****SI: Foreseen in 2011

Source: Country fiche appendix (Indicator x.2.7)

We note that the six¹⁰⁶ out of the seven¹⁰⁷ Member States that have already transposed the Directive have developed provisions which allow for activating a compensation fund. However the compensation funds will only be activated if the net cost of the USO becomes an unfair burden in the future. This is a very general finding. 11 countries have legislation in place for a compensation fund where postal operator shall contribute, but so far no country has activated the compensation fund, cf. Table 5.9.

¹⁰⁶ Six Member States: Austria, Estonia, France, Germany, the Netherlands, and Slovenia may be considered as countries where the existing laws are to a large extent already harmonised with the provisions in the Directive. This is based on the assessment of the respondents to the questionnaire. Germany may be in compliance to a large extent, but did not formally adopt any new law/amendments explicitly referring to Directive 2008/6/EC.

¹⁰⁷ The seventh Member State is Sweden, where the new postal law foresees public procurement if the USO poses unfair burden in the future.

Table 5.9 Size and organisation of compensation fund

Country with compensation fund	Size of compensation fund	Who contributes to the compensation fund?
Austria	Not answered	Incumbent, competitors
Belgium	Not answered	License holders
Cyprus	Not answered	Incumbent
France	Not answered	Not answered
Germany	Not activated	Incumbent, licence holders
Estonia	Not activated	Incumbent, competitors
Italy	116 million Euro	License holders (postal operators providing services within universal services)
Netherlands	Not answered	Not answered
Portugal	No fund created	-
Slovenia	Not activated	Incumbent and providers of interchangeable services.
Spain	Not answered	Not answered

Source: Country fiche appendix (Indicator x.2.7)

5.4. DISCUSSION ABOUT THE SCOPE OF THE USO

In recent years there has been a growing discussion, particularly in academic circles¹⁰⁸, about the scope of the USO. The background is that substitution and global recession have led to less mail and therefore higher cost per unit. Moreover, liberalisation means that the traditional source of finance for the USO - the reserved area - disappears. This implies that others, i.e. the state or postal operators, may have to compensate the USP for the USO costs if the net cost of the USO is deemed to be an unfair burden.

The discussion about the scope of the USO has mainly concentrated on reducing the USO in three dimensions:

- Time: fewer deliveries per week or longer transit time;
- Products: removing certain products from the USO, e.g. bulk mail;
- Geography: reduce the requirements on geographical coverage, e.g. fewer post offices.

The USO is a core element in postal regulation. Therefore, re-defining the USO will have many spill-over effects on other aspects of the postal market, cf. Figure 5.2.

¹⁰⁸ See the 18th Rutgers Conference on Postal and Delivery Economics, 2010, for example.

Figure 5.2 Future scope of the USO



Source: Copenhagen Economics

Consumer protection

The purpose of the USO is to ensure that all consumers and firms have access to postal services of good quality at affordable prices. The motivation for imposing a USO is that a free market may not deliver postal services to all, so remote areas may not be offered postal services. It is therefore important that a discussion about the scope of the USO is focussed on consumer needs. Reducing the service level may or may not have large impact on consumers, depending on their access to alternative means of communication.

USO costs

The main driver for the discussion about redefining the scope of the USO is the net costs of the USO. Maintaining a wide definition of the USO may be costly in a market with declining mail volumes. The net cost of the USO may be reduced by limiting its scope, if reducing the USO will lead to changes in the services of the USP. This would be the case a particular element of the USO was constraining the USP. However, if the USP still find it profitable to deliver mail six days per week, even though the USO is reduced from six to five days per week, this reduction will not affect the net costs of the USO, for example.

Studies of the net cost of the USO have mainly focused on reducing the frequency of delivery.¹⁰⁹

USO financing

If the net cost of the USO is small and not an unfair burden to the USP, the USP must handle the costs itself. On the other hand, if the net cost of the USO is an unfair burden to the USP, the USO may receive financing from other sources. The alternative sources can be state funding (taxpayers) or a compensation fund sponsored by the postal operators. A compensation mechanism will create a natural incentive for the contributors to argue about the scope of the USO.

¹⁰⁹ See Oslo Economics (2010), Bergum, Kristin (2008), Frontier Economics (2008), for example.

Pre-empting competition

The scope of the USO may have a direct effect on the scope for competition. Reducing the USO will imply that some customers receive a lower quality of service. These customers may turn to other operators and thereby potentially create a market for alternative operators. Reducing the time requirements in the USO (frequency or transit time) may increase demand for express and courier services, for example. The effect will depend on whether the products are close substitutes, and more specifically, whether consumers would be willing to buy a much more expensive service (express) if a priority letter was not be delivered fast enough. Reducing the number of delivery days from six to five may also imply that the USP loses competitiveness on non-USO products, e.g. because Saturday is a popular delivery day for unaddressed items.¹¹⁰

NRA

One of the main roles of the NRAs is to ensure universal services. This means that the regulatory scope is often limited to USO products. Hence, if the USO is defined narrowly, e.g. only single items, this reduces the NRAs scope for regulation. Therefore, removing certain products from the USO may imply that these products cannot be regulated by the NRA. However, this effect depends on the regulatory framework. The regulatory scope does not have to be limited to USO products; it could be based on assessment of SMP (significant market power) as used in telecom regulation, for example.

VAT exemption

As we demonstrate in chapter 7, VAT exemptions in the postal sector create distortions in both input and output markets.¹¹¹ The magnitude of these distortions depends on the scope of VAT exemptions. Many countries link VAT exemptions directly to the definition of the USO, so that products under the USO are VAT exempt. In those countries, removing products from the USO would also imply removing the VAT exemption on such products. As we explain in chapter 7, countries have different practices when it comes to VAT exemption, so in a number of countries there is no direct link between the USO definition and VAT exemption.

CO₂ emissions

The USO definition may have an impact on CO₂ emissions. In large countries such as France, Norway and Sweden, next day delivery requirements mean that the USP has to transport letters by aircraft because distances are too far for rail or road transport. This means that the next day delivery service creates increased CO₂ emissions. Similarly, reducing the number of delivery days would similarly reduce transport and thereby reduce CO₂ emissions. Reducing the number of postal outlets may on the one hand reduce transport for the USP but on the other, increase car transport for consumers.

¹¹⁰ Copenhagen Economics (2008).

¹¹¹ In the input market, the distortion arises because VAT exempt operators have less incentive to outsource. This is due to the fact that they cannot lift incoming VAT. In the output market distortions occur, because VAT exempt customers (e.g. banks) prefer to buy from a VAT exempt postal operator.

5.5. PILOT STUDY: ASSESSING THE NEED FOR THE USO

In order to stimulate the debate about future need for a USO, we have conducted a pilot study to measure the benefits of the USO.

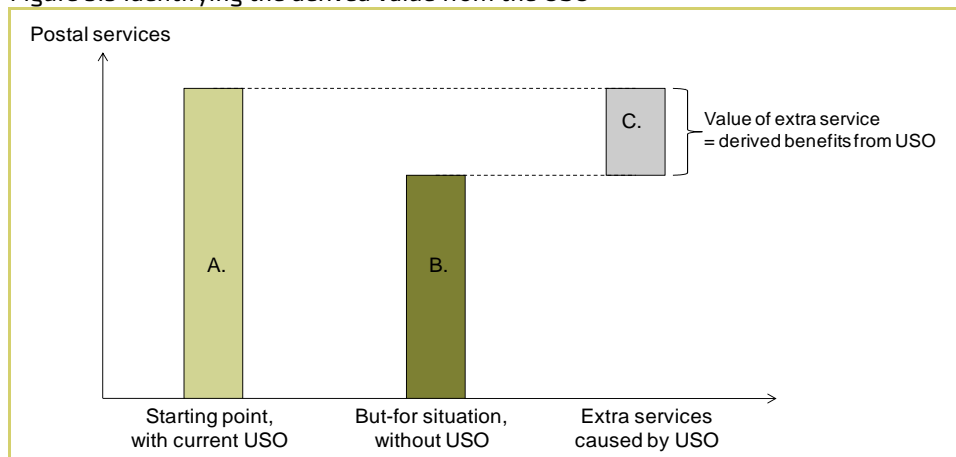
The purpose was to develop and test a methodology for systematically analysing the need for a USO. Such analysis will help policymakers make informed decision about the definition of the USO in the future.

The end goal is to estimate the value of consumer benefits derived from having certain postal services included in the universal service obligation. This raises two questions:

1. What extra services do consumers receive due to the USO?
2. How much are these extra services worth to consumers?

Including postal services in the USO only provides the consumers with extra value if they obtain other services, better quality or lower prices than they would have obtained if the postal service was not included in the USO. Hence, the analysis must involve, explicitly or implicitly, a 'but-for situation', c.f. Figure 5.3.

Figure 5.3 Identifying the derived value from the USO



Source: Copenhagen Economics

In our pilot study we have primarily focused on the last step, i.e. valuation of the extra services. Our focus has not been on how the 'but-for situation' should be defined and what specific changes in the USO to consider. We propose guidelines for how to handle these questions in section 5.8 (page 149).

Our pilot study combines an analysis of residential customers in one country, Austria, with an analysis of business customers in all countries in our survey. This setup has allowed us to develop and test a methodology for quantifying consumer benefits derived from the USO, which is our primary goal with the pilot study. However, we cannot draw firm and detailed

conclusions based on the estimated results. This would require a more thorough study along the lines described in section 5.8 (page 149).

Main findings

When we asked 600¹¹² residential customers what elements of the USO they find important, they more or less answered that everything is important. However, when we estimate their willingness to pay, we find a high willingness to pay for maintaining the nearest post office but a low willingness to pay for maintaining five delivery days per week, c.f. Table 5.10.

Table 5.10 Willingness to pay for the USO, main findings

	Frequency	Geography: post offices
A. Current service level, with USO	5 delivery days	1,650 post offices
B. Service level without USO (but-for situation)	3 delivery days	825 post offices
C. (=A-B) Extra service	2 delivery days	825 post offices
Willingness to pay for business customers	High (30% price increase)	Low (3% price increase)
Willingness to pay for residential customers	Low (€0.2 per stamp)	High (€0.9 per stamp)

Note: We asked 500 residential customers in Austria in an online survey conducted by SSI, and 100 residential customers in Austria without internet access at home in face-to-face interviews conducted by TNS Gallup.

Our online business survey contains answers from 142 businesses across Europe.

Source: Copenhagen Economics

Our pilot study suggests that the need for a USO is primarily focussed on ensuring access to post offices. Business customers do not seem to be willing to pay for maintaining post offices, but post offices are highly valued by residential customers. However, residential customers do not constitute an important revenue stream for postal operators.¹¹³ Hence, it is likely that postal operators will supply too few post offices unless the USO ensures sufficient access to post offices.

Business customers, who “pay the bill” because they send the most mail, have strong demand for frequent delivery. Moreover most time-critical mail - mail regarding financial transactions and newspapers - is sent by business customers. Finally, business customers respond that a reduction in delivery frequency would provoke a large substitution from the USP to other operators or to other means of communication. For these reasons, it does not seem likely that a profit-maximising postal operator will fail to satisfy the demand for frequent delivery.

¹¹² We asked 500 residential customers in an online survey conducted by SSI, and 100 residential customers without internet access at home in face-to-face interviews conducted by TNS Gallup.

¹¹³ The finding may seem counter intuitive because business customers should derive their demand from that of the consumers whom they send their mail to. In other words, if local post offices are important to consumers it should also be important to businesses sending mail to the consumers. However, the difference may be explained by three factors: First, residential customers are not only recipients but are also senders. Hence, aspects of their demand may be irrelevant to business customers. Secondly, residential customers may be willing to pay for the opportunity of having access to a post office close by, even though they rarely use it. Such demand may not have a spill over effect on businesses. Thirdly, our sample of business customers is rather thin, therefore it may contain biases.

Method

Our pilot study combines three types of analyses:

1. Analysis of the mail flow. We have done this by asking what type of mail respondents have received, whether it was time critical and what they would do if the USP did not deliver mail five days per week. This gives insights into which particular products are most dependent on USO.
2. Qualitative analysis of the USO's important elements. We asked residential and business customers to identify the most important elements of the USO for them. This is a simple approach. However, people often respond that they want all the benefits and to avoid all costs. Thus, there is a need for a more quantitative approach examining how people negotiate different benefits and losses.
3. Quantitative estimation of a monetary willingness to pay for USO services. We have constructed and performed stated preference games which allow us to do so.

We base our analysis on stated preferences by asking residential customers about their own preferences. Economists normally prefer to study revealed preferences, where actual purchasing behaviour is used to identify preferences. However, revealed preference studies require data for the services we want to examine. In this case, the question intends to identify people's willingness to pay for five delivery days instead of the hypothetical situation of three delivery days. This hypothetical situation does not allow for revealed preference methods.

We have chosen to focus our analysis of residential customers on one country, Austria. This provides us with better data quality and eases the data analysis, because we do not have to handle country specific effects. The study is not necessarily representative for other countries. We chose Austria for the survey because the country has remote locations where the USO may be important for many residents as well as having a good mix of urban and rural areas. Moreover, there is also high broadband penetration, which meant that we could obtain good coverage via our internet survey.

The Austrian USO requires five deliveries per week and a minimum of 1.650 postal service points.

Box 5.2 USO in Austria

The USO in Austria is defined in The Postal Service Act of 1997 and in chapter two of the Postal Market Act passed in 2009 (most USO elements from the Postal Market Act will come into effect January 1, 2011 but some are already in place). The following universal service obligations were in effect at the time of the residential survey in July 2010.

- The USO service includes clearance, sorting, transport and delivery of postal items up to 2 kg, parcels up to 20 kg and services for registered and insured postal items.
- Delivery frequency is five days per week, Monday through Friday, with the exception of holidays.
- Post offices: There shall be at least 1.650 postal service points available. In communities with more than 10.000 residents and in all district capitals, the postal service point should be at a maximum distance of 2 km for at least 90 percent of the population. In all other areas the maximum distance is 10 km.
- Post office opening hours: Post offices are to be open 5 days per week, on work days, at least 20 hours per week. However, a maximum of 165 offices can have opening hours of less than 20 per week and open less than 5 days per week.
- Mail boxes: In densely settled residential areas customers should, as a rule, be able to access a mail box no more than 1 km from their residence.

Source: RTR (2009), Postal Market Act, http://www.rtr.at/en/post/PMG/PMG_english.pdf

We have examined residential customers' willingness to pay for two dimensions of the USO which often appear in debates as costly elements of the USO: Frequency of delivery and post office availability, cf. Table 5.11 and Box 5.3.

Table 5.11 Variables for residential customer games

Variable	Alternatives
Delivery frequency	3, 5 or 6 days per week
Post office availability	Post office closest to your residence "Remains open" or "Will be closed"
Price per stamp (standard letter)	€0.44, €0.55, €0.72, or 0.90

Source: Copenhagen Economics

Box 5.3 Example of a game

Example of one of the games as presented to the residential customers:

Game 1	Service level A	Service level B
Delivery frequency	5 days a week	3 day a week
Post office closest to your residence	Will be closed	Remains open
Price of stamp for a standard letter	€ 0.72	€ 0.55

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
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In the example game the respondents are asked to choose between situation (A) with delivery 5 days per week, with the nearest post office closed and a stamp cost of € 0.72 and situation (B) with delivery 3 days per week, with the nearest post office remaining open and a stamp cost of € 0.55. Respondents can answer that they "Definitely" prefer A (or B) or "Maybe" prefer A (or B) or they can answer "Neither nor" if they cannot choose or do not know. For a full list of the games used see Appendix A.

Source: Copenhagen Economics

We have also examined business customers' willingness to pay for frequent mail delivery and maintaining a dense post office network. Moreover, we have also examined their willingness to pay for having bulk mail included in the USO.

When asking respondents how valuable the USO is to them, the but-for situation can either be made explicit or implicit:

- In the explicit approach, we tell the respondents what service levels they will experience after the USO has been changed. We then ask respondents to value these different outcomes.
- In the implicit approach, we ask the respondents to value the USO elements directly, e.g. assign a value to having bulk mail included as a USO service. This presumes that the respondents form their own 'but-for' scenario of what they expect to happen as a consequence of change USO. Accent (2008)¹¹⁴ have also used this approach.

We have tested both the explicit (regarding frequency and post offices) and the implicit approach (regarding bulk mail) and strongly recommend an approach with explicit statement of the 'but-for' situation.

5.6. RESIDENTIAL CUSTOMERS' PERSPECTIVE ON THE USO

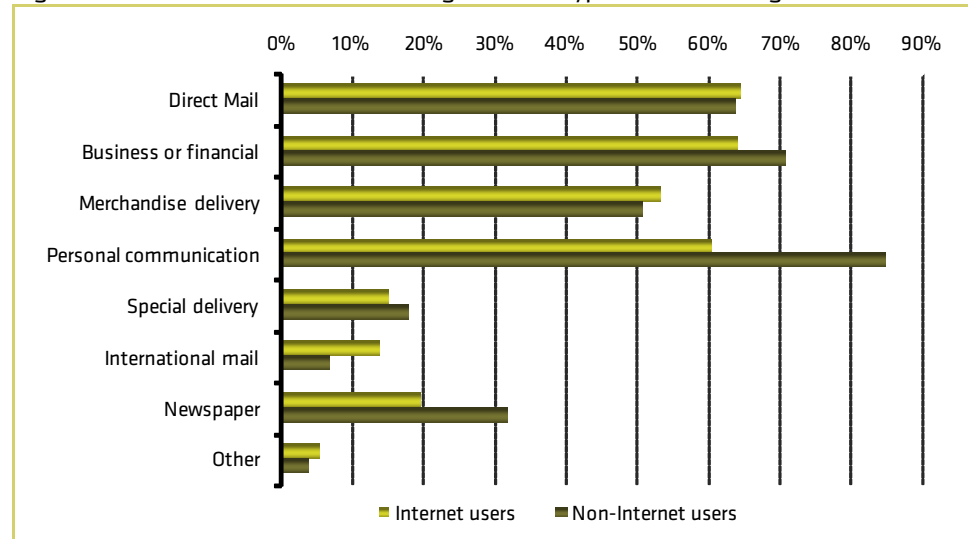
To examine residential customers' (i.e. ordinary households) perspective on the USO, we have conducted two consumer surveys – one via the internet (conducted by SSI, 500 respondents), and one with face-to-face interviews of residential customers without internet access in their home (conducted by Gallup, 100 respondents).

Time critical mail flows

In one week, 60 to 80 percent of all households have received direct mail, mail regarding business and financial transactions, and private correspondence. Our surveys indicate that non-internet users seem to receive mail more frequently than internet users, cf. Figure 5.4.

¹¹⁴ Postal Universal Service Obligation: Value to the citizen. Report prepared for Postwatch, Accent, May 2008.

Figure 5.4 Share of households receiving different types of mail during one week



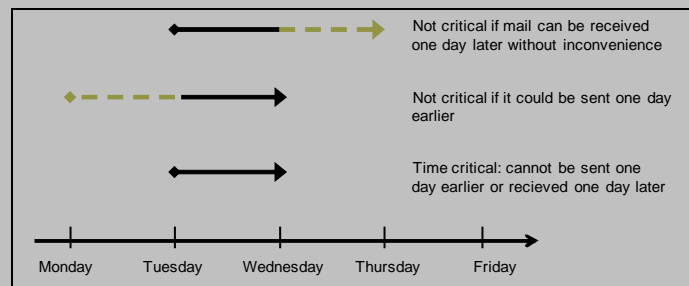
Note: The survey does not distinguish between newspapers distributed by the USP and other distributors.

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

We have asked a number of questions to analyse what elements of the mail flow residential customers consider to be time critical, i.e. mail that had to be received on a particular day and could not have been sent a day earlier, cf. Box 5.4.

Box 5.4 Definition of time-critical mail

The timing dimension of the USO is only relevant if residential customers consider it to be important to receive mail on a particular day. Hence, if residential customers are indifferent as to whether they receive mail on a Wednesday or Thursday, the timing is unimportant. Similarly, timing requirements are unimportant if the mail could have been sent one day earlier – i.e. sending a letter Monday instead of Tuesday in order to reach the recipient on Wednesday. Our definition of time-critical mail implies that both conditions are fulfilled.



To determine the relevance of the timing dimension in the USO, we asked residential respondents the following two questions:

Question 6: Considering the mail you received last week, would it have been inconvenient for you to receive the mail one day later?

1. Yes, it was important to receive all the mail on that day.
2. Yes, it was important to receive some of the mail on that day.
3. No, it would not have been inconvenient to receive the mail on one day later.

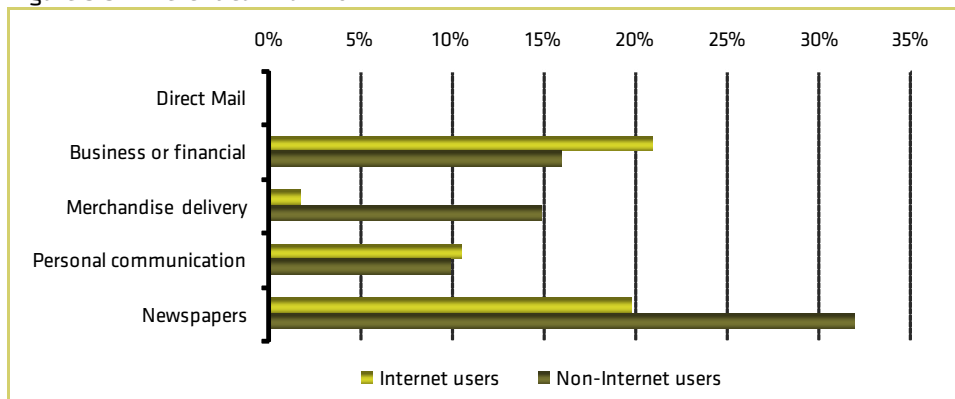
Question 13: Considering the mail you sent last week, would it have been inconvenient for you if the delivery was one day later than at present?

1. Yes, it was important that all mail was received with the same delivery time as usual.
2. Yes, it was important to receive some of the mail on that day.
3. No, it would not have been inconvenient to receive the mail one day later.

Source: *Copenhagen Economics*.

The mail which residential customers consider to be time critical is primarily that regarding business and financial transactions, delivery of merchandise and newspapers, cf. Figure 5.5.

Figure 5.5 Time-critical mail flow



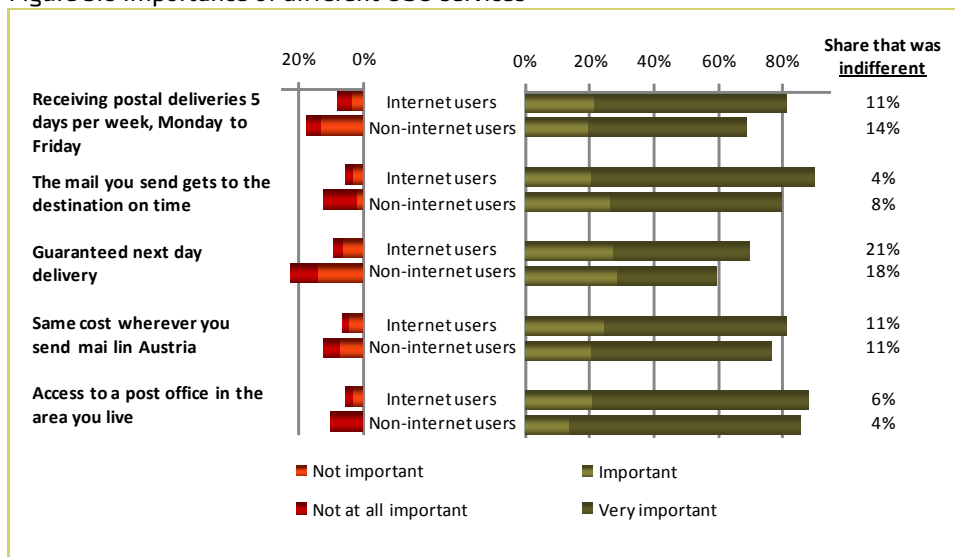
Note: Share of households that received time-critical mail last week. The survey does not distinguish between newspapers distributed by the USP and other distributors.

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

Attitudes to USO services

We asked residential customers to state the importance of different USO services by expressing their opinion on a scale of 1-5. Generally, the answers indicate that residential customers find all USO elements important. Access to a post office near one’s home and timely delivery are both very important factors. Interestingly, there is only quite small difference between internet users and non-internet users. In fact, the answers may indicate that non-internet users find USO services less important than internet users do, cf. Figure 5.6.

Figure 5.6 Importance of different USO services

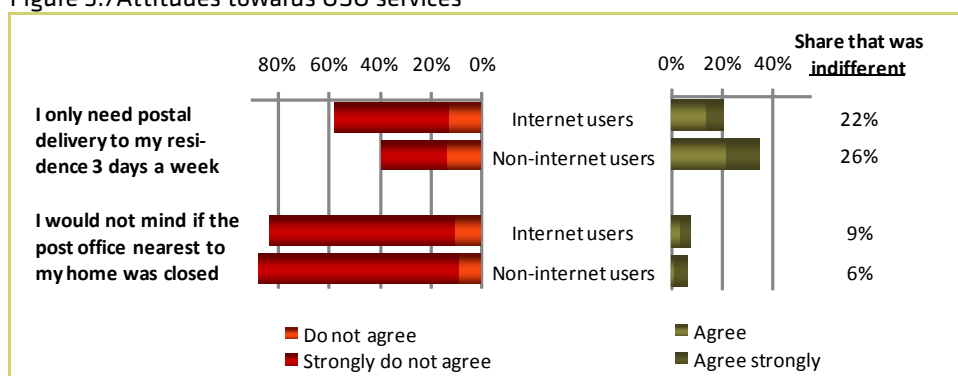


Note: For services regarding same cost and post office accessibility the differences may just reflect statistical uncertainty, however for delivery and timeliness there is a statistical difference.

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

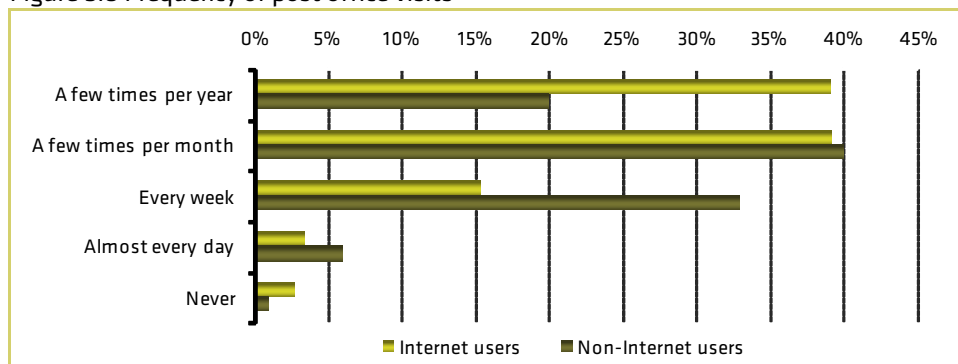
We have also asked residential customers about their attitudes towards reductions in USO services. The picture is similar for internet users and non-internet users. Closing of post offices is very unpopular. Our surveys suggest that closing post offices is slightly more unpopular among non-internet users than among internet users. This is not surprising as non-internet users use post offices much more than internet users do, cf. Figure 5.7 and Figure 5.8.

Figure 5.7 Attitudes towards USO services



Source: Copenhagen Economics based on SSI online survey and Gallup interviews

Figure 5.8 Frequency of post office visits



Source: Copenhagen Economics based on SSI online survey and Gallup interviews

Willingness to pay

We asked residential customers to choose between a series of alternatives with different stamp prices and different service levels. The trade-offs made in these answers enable us to estimate the willingness to pay for different elements of the USO. The method is described in Appendix A.

Our results indicate high willingness to pay for maintaining the nearest post office and low willingness to pay for maintaining five delivery days. A reduction from five to three delivery days corresponds to a price reduction of €0.17 in the stamp price, while closing the nearest post office corresponds to an increase of €0.5-0.9, c.f. Table 5.12.

Table 5.12 Willingness to pay per household, per letter

	WTP, € internet users	Statistical significant	WTP, € non-internet users	Statistical significant
5 delivery days per week instead of 3 delivery days	0.2	Yes	0.2	Yes
6 delivery days per week instead of 5 delivery days	-0.0	No	-0.0	No
Maintaining nearest post office	0.5	Yes	0.9	Yes

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

5.7. BUSINESS CUSTOMERS' PERSPECTIVE ON THE USO

We have performed a similar analysis regarding business customers' need for USO services.

Our survey focuses on three main elements of the USO:

- Time dimension: Changes in delivery frequency (three, five or six days);
- Geographical dimension: Changes in the number of post offices;
- Product dimension: Effect of excluding bulk mail from the USO in countries where they are part of the USO.

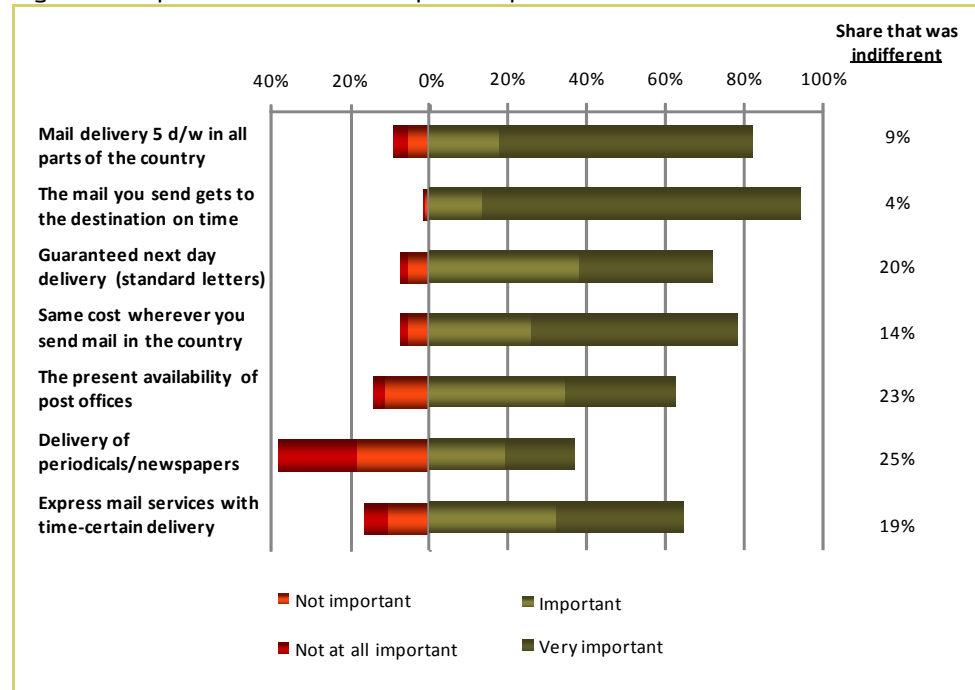
Our business survey is not limited to one country. We have sent out invitations to participate in the survey as broadly as possible in order to receive as many answers as possible and in order to cover both small and large businesses.

We have distributed our survey in different ways: Cooperation with mailers' associations (FEDMA), cooperation with NPOs, and via an open invitation on our homepage. Businesses from 25 EU countries have participated. In total we have 142 respondents covering both small and large businesses. This is a very low number, especially since business customers are very heterogeneous. Our findings in the following should therefore only be viewed as indications from a small pilot study. Our sample is described in Appendix A.

Attitudes to USO services

We have asked business customers to state the importance of different USO services by expressing their opinion on scale of 1 to 5. The answers generally indicate that business customers find timely and frequent delivery to be the most important aspects of the USO. Business customers also find uniform geographical pricing very important. On the other hand, they do not find delivery of newspapers and access to post offices very important, cf. Figure 5.9.

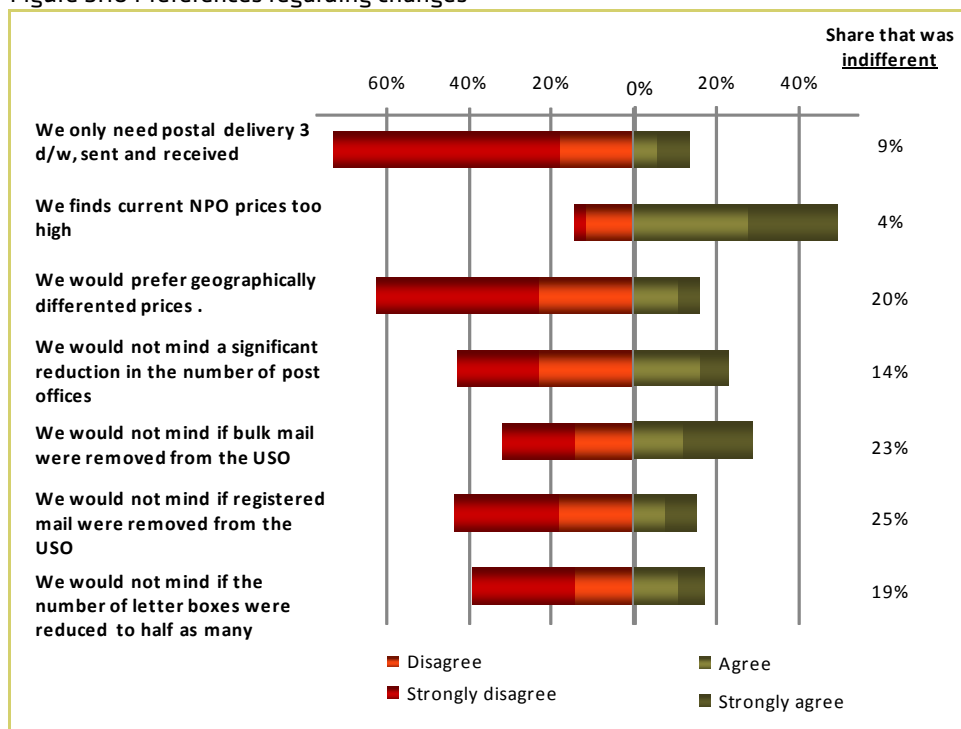
Figure 5.9 Importance of different aspects of postal services



Source: Copenhagen Economics based on SSI survey for business customers

We have also asked business customers about their attitudes towards reductions in USO services. The picture is similar – frequent delivery and uniform geographical pricing is important to them. On average, business customers put the same weight on a reduction in the number of letter boxes and post offices as to the removal of registered mail and bulk mail from the USO, cf. Figure 5.10.

Figure 5.10 Preferences regarding changes



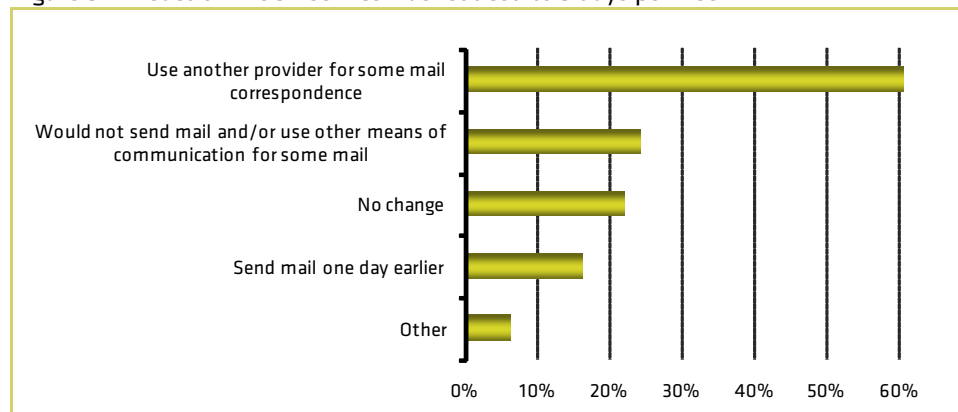
Source: Copenhagen Economics based on SSI online survey for business customers

Response to lower delivery frequency

We have asked business customers what changes they would expect if the delivery frequency is reduced from five to three times per week.

The answers indicate that business customers would substitute away from the USP if it reduced delivery frequency. Most business customers would either turn to another operator or substitute with another means of communication. In addition, some business customers would respond by sending their mail earlier, cf. Figure 5.11.

Figure 5.11 Reaction if USP service was reduced to 3 days per week



Note: Share of respondents that would take each action.

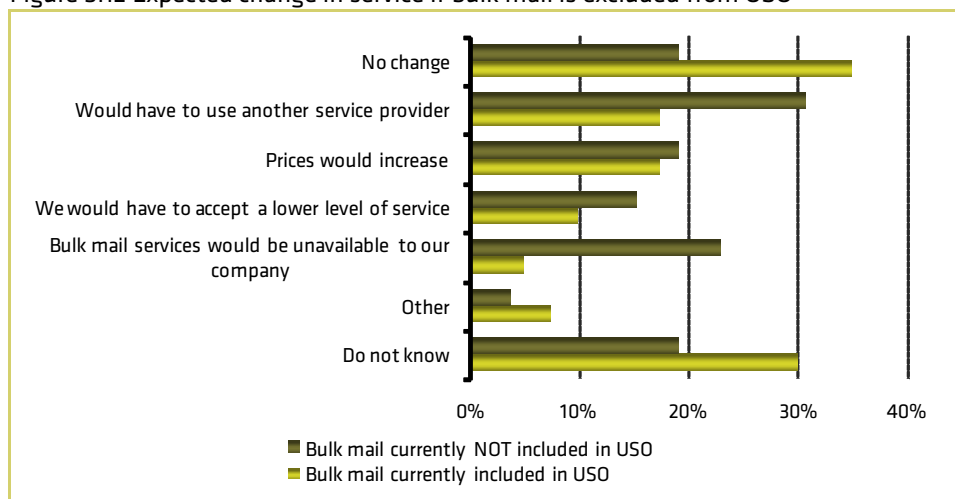
Source: Copenhagen Economics based on SSI online survey for business customers

That our pilot study indicates a large substitution away from the USP in case of a reduction in delivery frequency gives business customers strong buyer power. This would imply that USPs most likely find it commercially unattractive to reduce delivery frequency from five to three days per week. The loss of customers would be too significant. The implication of this is that a USO requiring five deliveries per week does not give consumers more frequent delivery than they would have obtained on a free market without USO.

Response to removal of bulk mail from the USO

We asked business customers what changes they would expect if bulk mail was removed from the USO. The answers reveal that it is very problematic to ask respondents directly about their perception of the USO. Often respondents do not even seem to know what services the USO provides in their country. We find that in countries where bulk mail is not included in the USO, a very large share of the respondents answer that removing bulk mail from the USO (which has already happened) will result in lower quality of service or higher prices. This suggests that respondents did not understand the question and that respondents cannot foresee the effects of changing the USO, cf. Figure 5.12.

Figure 5.12 Expected change in service if bulk mail is excluded from USO



Note: The percentages show the share of respondents which expects each change. "Bulk mail currently not included in USO" means that the respondent lives in country where bulk mail is not part of the USO.

Source: Copenhagen Economics based on SSI online survey for business customers.

Willingness to pay

We also asked business customers to choose between a series of alternatives involving different service levels and different price levels. This enables us to estimate the willingness to pay for different elements of the USO. The method is described in Appendix A.

Our estimates indicate that business customers have a high willingness to pay for frequent delivery. Going from five to six delivery days per week corresponds to a price increase of 11 percent and going from three to five delivery days corresponds to price increase of 29 percent. On the other hand, we found no willingness to pay for a dense post office network or for including bulk mail as part of the USO, cf. Table 5.13.

Table 5.13 Willingness to pay for USO services – business customers

Element in the USO	Willingness to pay, price increase	Statistical significant
5 delivery days per week instead of 3 delivery days	29%	Yes
6 delivery days per week instead of 5 delivery days	11%	Yes
Post offices available as now instead of only in large communities, parcel customers	3%	No
Post offices available as now instead of only in large communities, Non-parcel customers	-3%	No
Bulk mail as USO product, bulk mail users	-1%	No
Bulk mail as USO product, non-bulk mail users	-6%	Yes

Note: Bulk mail users are mailers that currently make use of bulk mail services from the NPO

Source: Copenhagen Economics based on SSI online survey for business customers.

Although our results are not very robust due to the small sample with biases (Slovenia and Hungary are very much over-represented in the sample)¹¹⁵, we do feel that our results provide some useful insights. We note that our estimates are consistent with the qualitative questions. Timely and frequent deliveries were considered to be the most important elements of the USO, whereas availability of post offices and inclusion of bulk mail in the USO scored lower. Our estimates of the willingness to pay show the same.

5.8. EXPERIENCES AND RECOMMENDED APPROACH

This is a pilot study focusing on developing and testing a method for estimating the value of the USO. As our pilot study had a limited budget and since we were exploring new approaches, there are naturally a number of points where we recommend improvements in future studies of this topic.

Based on our experiences, we have laid down a road map for a comprehensive study of the need for a USO which can help policy makers to make informed decisions, cf. Table 5.14.

¹¹⁵ We have made no special efforts to obtain answers from these countries.

Table 5.14 Road map for informed decisions on future USO regulation

	Activities	Comment
A. Define current level of service	Map the current service level	
B. Define benchmarks for but-for situation, i.e. level of service with different USO	<p>Define policy relevant changes in USO definition</p> <p>Assess the likely service level provided under changed USO definition</p>	<p>Interviews with key stake holders will provide valuable insights to guide the formulation of policy relevant changes in USO definitions. A fruitful approach might be to organise a workshop with key stake-holders to discuss what the policy relevant changes in USO might be, and what the likely impact on service levels will be.</p> <p>The five questions in the commercial approach, cf. Box 5.1 will be useful to assess the likely service levels provided under changed USO definition. If, for example, the USP already over performs when compared to the current USO, then relaxing the USO requirement is not likely to change the service level.</p> <p>Finally, an analysis of the demand from business customers will provide useful insight here as business customers account for the main part of the turnover. Hence, if business customers have high demand for a particular service, the USP is likely to provide the service on a commercial basis. Thus USO definition will probably not influence the service level for such elements</p>
C. Identify extra services caused by USO	Define the difference between service level in step A and step B	This will identify the services that would not be provided under a more narrow USO
D. Assess consumer benefits of extra services	<p>Survey residential and business customers</p> <p>Use qualitative assessment and quantitative willingness to pay estimation.</p>	<p>It is very important to have access to a well-balanced panel of business customers.</p> <p>The survey of residential customers must be designed so that it is possible to estimate the willingness to pay for certain vulnerable consumer groups, e.g. residents without internet access.</p> <p>We strongly recommend that the surveys explicitly state the expected changes in service and price levels, and do not presume that respondents can infer how changes in USO will affect them.</p> <p>The surveys should be performed in over long time or in normal periods, not holiday seasons and not peak weeks.</p> <p>We also recommend the use of pilot surveys to allow better fine-tuning of the questions.</p>
E. Assess costs of providing extra services	Assess how costly it will be for the USP to provide the additional services	This requires, in principle, an assessment of the net avoidable costs of providing the particular service, e.g. how much can the USP save by not delivering mail five days per week in rural areas.
F. Balance benefits and costs	Set up a cost-benefit analysis weighing the benefits against the costs	Ultimately, policy makers must decide whether benefits outweigh the costs and how the USO should be defined

Source: Copenhagen Economics.

Chapter 6 POSTAL LABOUR MARKETS

6.1. MAIN FINDINGS AND RECOMMENDATIONS

With its 1.8 million workers across Europe, the postal sector is one of its largest employers.¹¹⁶ However, at the time of writing this report, the evolution characterised by progressive liberalisation, e-substitution, rationalisation and a growing demand for social and environmental responsibility, is creating challenges as well as opportunities for postal operators who have to transform their organisations accordingly. This will inevitably have implications for the size and structure of postal sector employment.

In this chapter we provide an overview of the main developments and trends in postal sector employment across Europe. We also carry out an in-depth analysis of two topics:

Topic 1: What is the effect of liberalisation on employment conditions and how do labour regulations affect the development of competition?

We find that new operators entering the postal market often develop alternative, low-cost business models to compensate for non-existent economies of scale and brand recognition and to be able to compete with established NPOs. Such business models often include hiring a younger or less educated workforce, or developing a larger share of part-time contracts or other alternative contract forms, compared to the NPOs. We observe several examples of this in Sweden, Germany, Austria and Belgium, for instance.

The introduction of alternative employment forms has created a fear of worsening employment conditions and wage dumping¹¹⁷ in the postal sector at market liberalisation. We find wage dumping an unlikely scenario when pre-liberalisation wages in the postal sector are in line with wages in other sectors employing workers with the same skill level. The development in the Swedish postal market illustrates this point well. However, with an extensive use of self-employed mail deliverers, wage dumping might be a potential problem since self-employed workers (having the job as a secondary source of income) are sometimes prepared to work for below market wages.

In a situation where postal sector workers have benefitted from a pre-liberalisation wage premium¹¹⁸, liberalisation will put a downward pressure on wages towards a market-based level¹¹⁹. We find that wage premiums give NPOs the incentive to try to impose sector-wide wages and employment standards close to its own. The development in the German postal market might illustrate this. A sector-wide introduction of above-market wages raises the costs of rival operators, but leaves the costs of the NPO relatively unaffected and might, in

¹¹⁶ European Social Dialogue Committee of the Postal Sector (2010), Joint statement on postal sector evolution.

¹¹⁷ By “wage dumping” we mean that wages in the postal sector are below wages in similar sectors with a comparable skill level.

¹¹⁸ A wage premium in the postal sector means that postal sector workers receive higher wages compared to workers with the same skill level in other sectors.

¹¹⁹ In the rest of this report, the term “wage pressure” is used to refer to this development.

this way, act as an entry barrier. We find no indication of attempts to raise rivals' costs where this would also imply higher costs for the NPO itself.

Based on our analysis, we recommend careful consideration of the consequences of any statutory extension to the entire postal sector of collective labour agreements specifying wages and employment standards which do not represent the entire postal sector. An extension of mechanisms other than bipartite collective bargaining to the whole sector, as in the German case, need to be carefully considered. If the conditions foreseen are set at an above market level or prevent new operators from using alternative contract forms, this will impede competition.

We do not see any reason to abolish the use of self-employed mail deliverers per se since this type of flexible contract form adds value both to certain types of workers and to new postal operators trying to compete with the NPOs. To alleviate the potential problem which might be created by an extensive use of self-employed workers, we instead recommend that self-employed workers with the mail delivery job as their primary source of income should be guaranteed an hourly minimum wage corresponding to the national minimum through regulation. This is the current situation in the Netherlands where the self-employed contract form is widely used, for instance.

Topic 2: How does full market opening affect employment, i.e. to what extent are the observed reductions in postal sector employment in Europe driven by liberalisation, competition and by technological development?

We find that liberalization and competition have not been important drivers of the observed changes in postal sector employment to date. In fact, our research indicates that technological development (mainly through e-substitution and automation) is a more important driver of postal sector employment. When estimating the impact of various drivers on employment, we find the largest employment effect to derive from increased e-substitution whereas GDP development and actual competition only seem to have minor employment effects. However, due to difficulties in obtaining a complete data set with sufficient variation, particularly because there has been little development in competition, our results are not very robust. Nevertheless, our indicative estimation results are supported by empirical evidence showing that increased automation and e-substitution (reducing the need for manual processing in the postal value chain) have had direct effects on employment, for example.

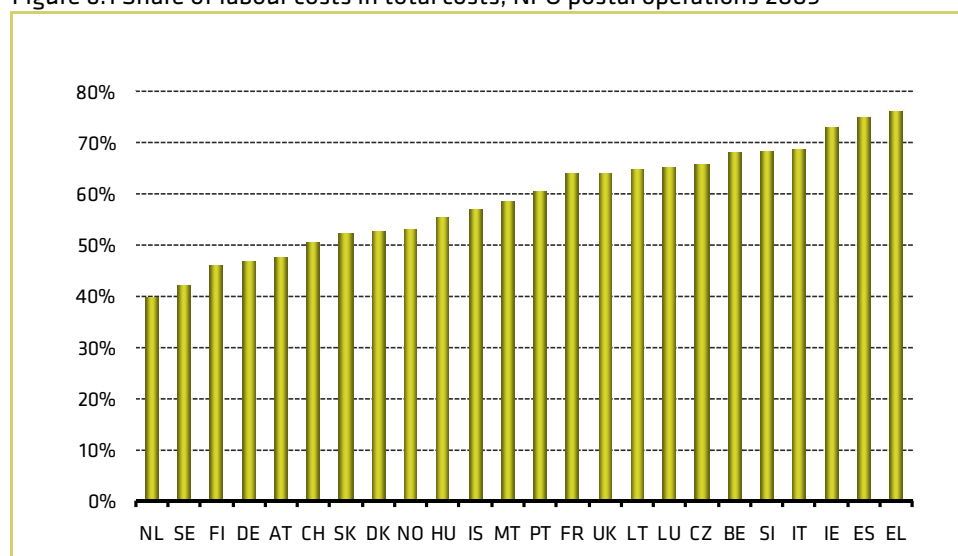
6.2. SECTOR OVERVIEW

Labour intensity and the scope for cost reductions

Traditional postal services are very labour intensive in their nature and therefore, labour costs often represent a high share of total costs at the NPOs. However, as NPOs transform their organisations to adapt to the new market situation, we also observe a decrease in their

labour cost ratio. From constituting on average 80 percent of total costs prior to 1990, the labour cost ratio at the NPOs had reduced to 71 percent in 1997, on average.¹²⁰ Today, we find the average labour cost ratio among the European NPOs to be approximately 60 percent, but the ratio varies significantly between countries: From approximately 40 percent in Sweden and the Netherlands to over 70 percent in Ireland, Spain and Greece, cf. Figure 6.1.

Figure 6.1 Share of labour costs in total costs, NPO postal operations 2009



Note: BG, CY, EE, LI, LV, PL, RO: No data available

Source: Country fiche appendix (Indicator x.8.2) complemented with data from annual reports

The variation in labour cost ratio across countries can, to a certain extent, be explained by increased automation, which decreases the amount of manual work and opens up changes in employment structures. The four countries with lowest labour cost ratio (NL, SE, FI, DE) all have a relatively high degree of automation. However, so do Greece and Slovenia, for example. The difference must therefore be explained by something else, such as outsourcing of activities. Outsourced activities are not registered as personnel expenses but often as other operational expenses in the financial statements of the NPO. Consequently, the labour cost ratio falls by the increase in the share of outsourcing.

We observe that the three NPOs with the lowest cost ratios either have no or very few products which are VAT exempt. This gives incentives to outsource activities and might thus explain the low costs ratios in the Netherlands, Sweden and Finland. We also observe a high degree of outsourcing in Germany, mostly in transport, parcels and post-in-shops.¹²¹ This is studied in further detail in chapter 7 on VAT.

¹²⁰ Price Waterhouse (1997).

¹²¹ Dieke and Zauner (2007).

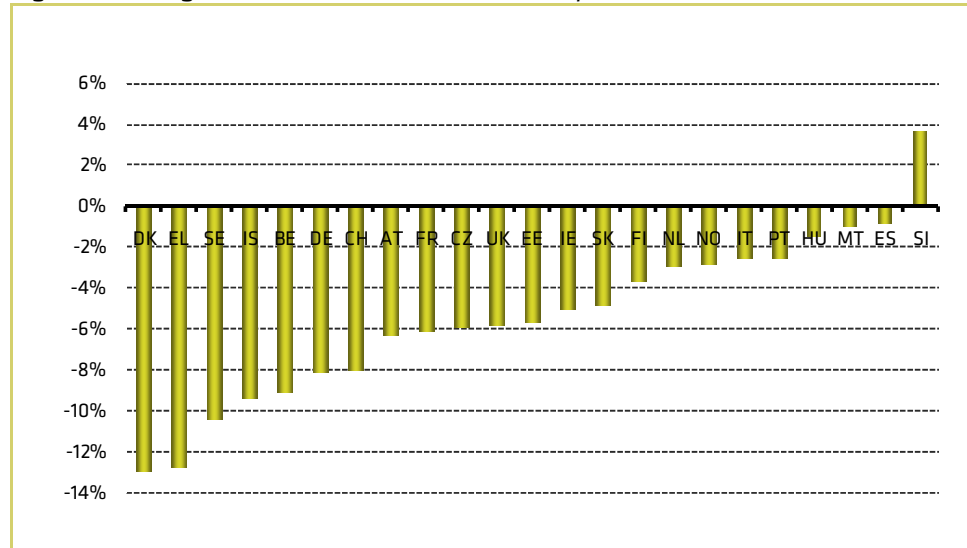
That the four countries with the lowest labour cost ratio all have both liberalised postal markets and a high share of citizens that regularly uses the internet to send or receive e-mails (between 70 and 85 percent) might further explain their cost structure.¹²² However, in the UK (another liberalised country with high e-mail penetration) we observe a significantly higher labour cost ratio. This might be explained by less automation and high pension costs.¹²³

The high proportion of labour costs among the NPOs make layoffs, wage reductions, and changes in employment structure effective and attractive measures to reduce costs to remain competitive.

Total employment and employment structure

Total employment at the European NPOs has decreased over the past few years. Overall we observe a decrease in the total number of full-time equivalents (LIEs) by 6 percent 2007-2009.¹²⁴ However, the development varies across countries with a decrease of approximately 13 percent in Denmark and Greece and stable employment in Malta and Spain, for example. We only observe increasing employment at the NPO in Slovenia, cf. Figure 6.2.

Figure 6.2 Change in the number of LIEs at the European NPOs, 2007-2009



Note: BG, CY, LI, LT, LV, LU, PL, RO: No data available
Source: Country fiche annex (indicator x.8.1), Annual reports

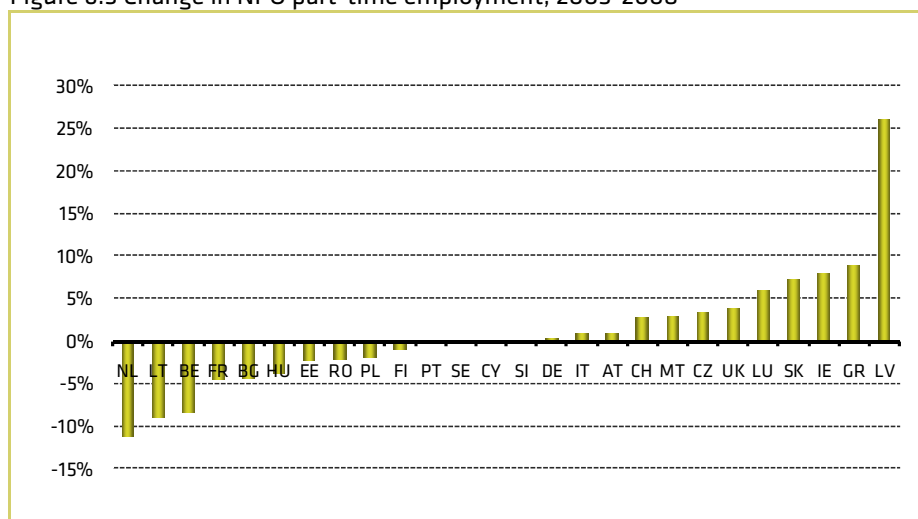
However, Figure 6.2 does not illustrate changes in employment structure, such as changes in the mix of full-time and part-time employment. When looking at this development, we observe that the share of part-time employment has increased at 13 and decreased at 10 NPOs, cf. Figure 6.3.

¹²² Eurostat (2010).

¹²³ Hooper, Hutton and Smith (2008), Hooper (2010).

¹²⁴ Data missing for BG, CY, LI, LT, LV, LU, PL, RO.

Figure 6.3 Change in NPO part-time employment, 2005-2008



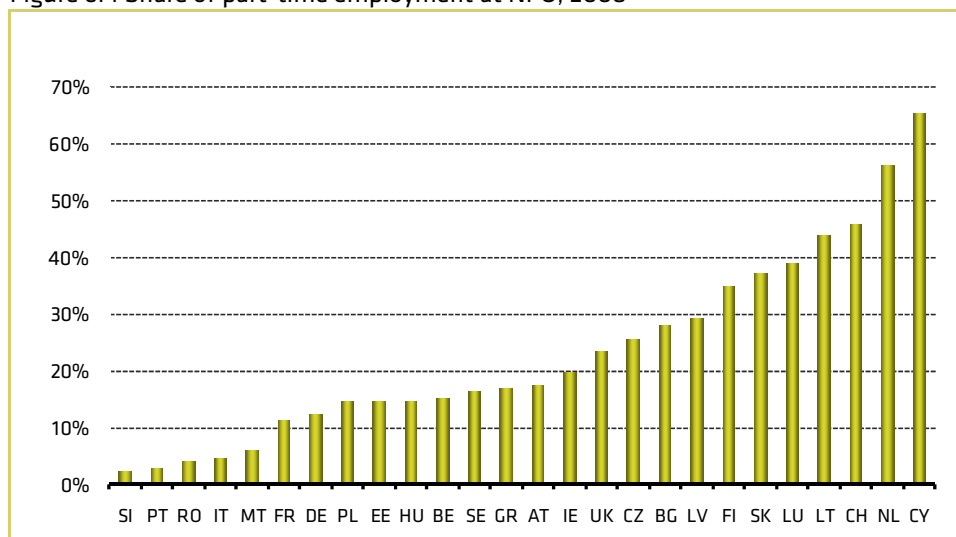
Note: No data on part-time employment in DK, ES, IS, LI, NO. Data for SI and LV: 2006-2008
 Source: Universal Postal Union (2010)

This development does not provide any evidence that the upcoming liberalisation has generally increased the share of part-time employment at the NPOs. However, we find indications that the use of part-time and other alternative contract forms is more widespread among competing operators active in segments beyond the letter market. This is the case in the Netherlands, Belgium and Austria, for example, where new entrants hire part-time workers or self-employed workers for deliveries, to a large extent.¹²⁵ This development does not seem to have had any significant effect on the share of part-time employment at the NPOs in those countries.

Turning to the absolute share of part-time employment we also here observe a large spread across Europe, from 2 percent of total employment in Slovenia to over 50 percent in the Netherlands and Cyprus, cf. Figure 6.4.

¹²⁵ European Social Dialogue Committee of the Postal Sector (2010); Correspondence from Cornelia Berger, policy officer at UNI Europa, 9th July 2010.

Figure 6.4 Share of part-time employment at NPO, 2008



Note: No data on part-time employment in DK, ES, IS, LI, NO.

Source: Universal Postal Union (2010)

The high share of part-time employment in the Netherlands can be explained by traditionally high levels of part-time employment (in 2010, 75 percent of working women in the Netherlands have part-time jobs).¹²⁶

We observe that female employees are also overrepresented within part-time employment at the Dutch NPO, TNT Post. In 2004, 68 percent of part-time employees at TNT Post were female. This can be compared to the overall share of female employees at TNT Post at that time which was 30 percent.¹²⁷ Today, the share of female employees in total TNT Post's mail operations is 41 percent.¹²⁸ This is at level with NPOs in Sweden and Finland, for example. There are, however, countries with a considerably higher share of female employees in the NPO workforce. Examples are Slovakia and the Czech Republic, where the share of female employees in the total NPO workforce was 83 and 80 percent respectively in 2008.¹²⁹

In Cyprus, the high proportion of workers in part-time employment might be explained by a relatively small workforce where the 1,200 part-time workers make up a large share of the total workforce. We find that the average proportion of part-time employment at the EU-27 NPOs was slightly below 16 percent in 2008. This represents a decline of two percentage points since 2006.

¹²⁶ Eurostat (2010).

¹²⁷ TNT Post (2004), "Steeds meer vrouwen bij grootste werkgever," http://group.tnt.nl/press/400474/Steeds_meer_vrouwen_bij_grootste_werkgever.aspx

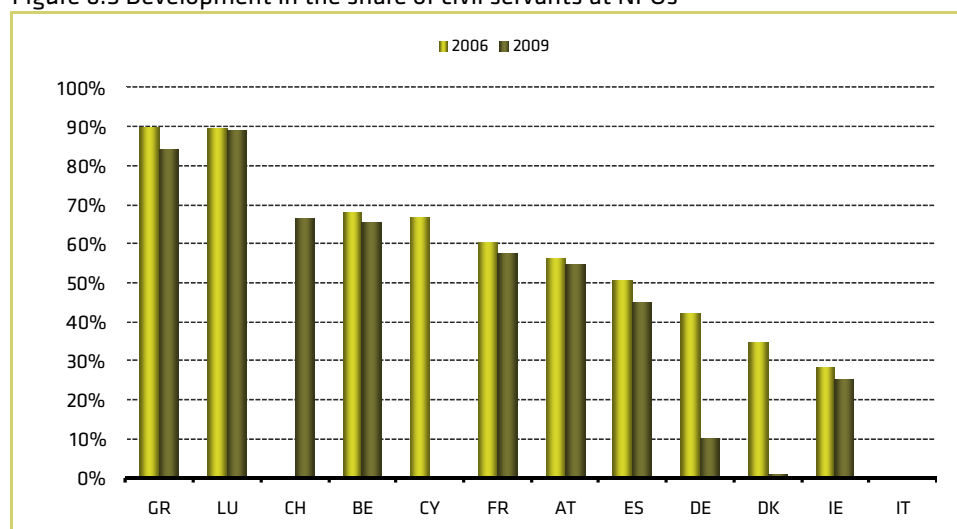
¹²⁸ TNT Post (2010), TNT Post annual report 2009, http://group.tnt.com/Images/TNT_annual_report_2009_chapter15_tcm177-491426.pdf

¹²⁹ UPU (2010), UPU data base – Female employees as a percentage of total staff.

Aside from changes in the number of employees and the type of employment contracts used, the last couple of years have also been characterised by a decrease in the number and proportion of civil servants.¹³⁰ As NPOs are corporatized, we observe that a common strategy is to introduce private law contracts for new employees while keeping the civil servant status of the existing work force. This normally implies fewer seniority benefits and a lack of employment guarantees for the newcomers and, in this regard, a cost-saving measure for the NPO. A slightly divergent strategy was implemented at Post Denmark, where civil servants at the time of corporatisation had the opportunity (with a one-time financial compensation for the benefits lost) to transform their civil law contract into a private law contract. This offer was accepted by 96 percent of the employees.¹³¹

Over the period 2007-2009, we observe a continued reduction in civil servants at the 11 NPOs that still have employees with this status, cf. Figure 6.5.

Figure 6.5 Development in the share of civil servants at NPOs



Note: No data available for CH and IT 2006 and CY 2009. ES: 2008. DK: Data for 2006 also includes former civil servants on private contracts with special terms.

Source: ECORYS (2008), Country fiche appendix (indicator x.8.1), Annual reports.

A particularly sharp decline can be observed in Germany. According to the German broadcaster Das Erste, 25,000 civil servants at Deutsche Post were pre-retired between 2002 and 2009 in an attempt to reduce costs and increase efficiency.¹³² The difference in Denmark is explained by the fact that the 2006 data also includes former civil servants on private contracts with special terms. We observe that Greece and Luxembourg are the only two coun-

¹³⁰ Postal workers have historically, due to the state-owned character of the national postal operators in the past, often enjoyed civil servant status with wages and benefits above a market-based level compared to private sectors hiring workers with similar skill level.

¹³¹ Post Danmark (2002), Post Danmark, Annual report 2001.

¹³² Das Erste (2009), Rückschau Deutsche Post,

http://www.daserste.de/plusminus/beitrag_dyn-uid,ww2ermdhnap8c32-cm.asp

tries where the share of civil servants still lies above 80 percent. In Greece, this might be the explanation for a high labour cost ratio, despite reductions in the number of LIEs and a relatively high degree of automation.

As civil servants' contracts often contain prescribed benefits and wage increases due to seniority, the decrease in civil servants has affected the average wage level at the NPOs, among other things. Thus, we would generally expect any wage differences between NPO and competitors to be larger in countries with a high share of civil servants at the NPO.

Since we have not been able to obtain a sufficient amount of data on competitors' wages, we compare the NPO average wage with the statutory minimum wage. In doing so, we reach two interesting observations. First, that average wages at the NPOs in general are significantly higher than any existing statutory minimum wage. In seven out of the twelve countries where we have been able to obtain data on NPO average wages and where a statutory minimum wage exists, the average wage paid by the NPO is more than twice the statutory minimum wage and there is only one country where the difference is less than 30 percent. Second, that the largest difference can be observed in the countries with a high share of NPO civil servants, i.e. Greece and Luxembourg cf. Table 6.1.

Table 6.1 Wages paid by NPOs vs. national minimum wages, 2009

Country	Average wage (€/h)	National minimum wage (€/h)	Minimum wage as share of NPO avg. wage (%)
AT	9.5 (minimum 2007)	6.3 ⁴	66
BE	9.5 (minimum 2007)	7.87 (2007) 8.4 (2009)	88
BG	-	0.9	-
CH	28.7	None ¹	n/a
CY	-	None ¹	n/a
CZ	5.2	1.9	37
DE	13 (2007)	None	n/a
DK	-	None ¹	n/a
EE	-	1.6	-
ES	-	4.5	-
EL	13.5	4.1	30
FI	13.8	None ¹	n/a
FR	-	8.7	-
HU	3.3	1.6	48
IE	21.8	8.7	40
IS	8.4	None ¹	n/a
IT	-	None ¹	n/a
LI	-	None ¹	n/a
LT	-	1.3	-
LU	33	9.5	29
LV	-	1.4	-
MT	6.2	3.6	58
NL	15	8.7	58
NO	29.9	None ¹	n/a
PL	-	1.6	-
PT	-	3.1	-
RO	-	0.9	-
SE	-	None ¹	n/a
SI	8.2	3.4	41
SK	3.7	1.8	49
UK	11.1 (minimum 2007)	6.1	55

Note: - means no information provided. Minimum wage per hour is calculated based on the regulated working hours per month for each country. ¹ None means no statutory minimum wage present ² A sectoral minimum wage was decided upon in December 2007, valid until 31st April 2010. ³ 2008 data

Source: Average wage from country fiche appendix (indicator x.8.2), complemented by UNI Europa (2009) and European Social Dialogue Committee of the Postal Sector (2010) where data not provided by NPO, Minimum wages from Eurostat (2009)

Unionisation rates and the presence of employers' associations

Traditionally, employment conditions in the postal sector have been safeguarded by high unionisation rates at the NPOs. As new operators enter the market, trade unions fear that this situation will change. This could be the case if unionisation rates at the new employers are too low to call for a new company agreement and if there is no sector-wide collective agreement or statutory minimum wage in place. Additionally, as new entrants are often not members of any employers' organisation, even if collective labour agreements existed on a sector-wide basis they would not always apply to them. We have not been able to obtain any data on alternative operators' membership in employers' associations. However, we do ob-

serve that in at least 13 countries there are no employers' association present in the postal sector, cf. Table 6.2.

Table 6.2 Presence and collective bargaining of employers' organisations, 2006

	No. of countries	Countries
Postal sector employers' association present	15	CY, CZ, DE, DK, EE, ES, FI, IE, IT, LU, NL, NO, SE, SI, SK
No employers' association present	13	AT, BE, BG, EL, FR, HU, LT, LV, MT, PL, PT, RO, UK
No information	3	CH, IS, LI

Source: Eurofound (2008)

Regarding unionisation, we observe that unionisation levels at the NPOs are still above the country average in all countries where data is available and that the agreements usually cover the NPO employees only. We also observe that most countries with no sector-wide agreement have a statutory minimum wage that prevents wages from diverging too considerably, cf. Table 6.3.

Table 6.3 NPOs' industrial relations, 2009

Country	Union density at NPO (%)	Average union density in the country (%)	Minimum wage (€/month)	No. of unions in the postal sector	NPO collective agreement including new competitors
AT	80	32	1,000 ⁴	3	No
BE	80	54	1,387	-	No
BG	78	20	123	2	No
CH	50	19 ³	None ¹	2	-
CY	Very high	62	None ¹	3	No
CZ	45	21	306	4	-
DE	80	20	None ²	3	No
DK	80	68	None ¹	2	No
EE	45	13	278	2	No
EL	99	23	681	3	Yes
ES	70	16	728	7	-
FI	82	71	None ¹	1	Yes, some
FR	<10	8	1321	7	No
HU	65	17	270	7	No
IE	97	32	1462	4	No
IS	-	88	None ¹	-	Yes
IT	82	33	None ¹	6	No
LI	-	-	None ¹	-	-
LT	50	14	232	1	No
LU	High	40	1642	2	No
LV	59	16	254	1	No
MT	95	57	630	2	No
NL	50	21	1382	4	No
NO	70-90	55	None ¹	1	-
PL	60	16	281	67	-
PT	83	18	525	15	No
RO	88	34	153	1	No
SE	97	71	None ¹	5	No
SI	60	41	589	-	No
SK	50	24	296	2	No
UK	80	27	1010	5	No

Note: - means no information. ¹ None means no statutory minimum wage present ² A sectoral minimum wage was decided upon in December 2007, valid until 31st April 2010. ³ 2006 ⁴ Since 2009, there is a national minimum wage covering full-time employees in almost all private sectors in Austria.

Source: UNI Europa (2009), European Social Dialogue Committee of the Postal Sector(2010) complemented with information from Eurofond (2007) and Eurofond (2008), <http://www.worker-participation.eu/National-Industrial-Relations/Across-Europe/Trade-Unions2>, <http://www.fedee.com/tradeunions.html#Iceland>

For those countries without a sector-wide agreement or a minimum wage in place, a tradition of extensive collective bargaining coverage in the country could serve as a substitute, as this often puts a social pressure on employers to sign a collective labour agreement to avoid being regarded as fraudulent. Collective bargaining coverage in countries without a statutory minimum wage ranges from 70 percent in Norway to 98 percent in Austria. In Germany, another country without a statutory minimum wage and a without a sector-wide collective labour agreement in place, only 60 percent of employees are covered by collective bargain-

ing.¹³³ Nevertheless, we observe that the employees of alternative operators in Germany are often covered by collective labour agreements, negotiated between unions and federations other than those at the NPO. This is a common situation across Europe which provides for a differentiation of wages and working conditions across operators. Whether these emerging differences are a sign of wage dumping or an indication of a wage premium existing at the NPOs is a topic which has received a significant amount of attention in the light of the upcoming liberalisation. We will devote the subsequent three sections of this chapter to this area of discussion.

6.3. CHANGES IN EMPLOYMENT CONDITIONS: LITERATURE AND MAIN FINDINGS

In the process of postal market liberalisation, and against the background of decreasing volumes of traditional letter mail, we observe that postal operators are trying to reduce costs and increase efficiency. Due to high labour intensity, an effective way to reduce costs is through layoffs and changes in employment conditions.

We also observe that new operators often use alternative, low-cost business models to compensate for non-existing economies of scale and brand recognition and to compete with established NPOs. Such business models often include a younger or a less-educated workforce, a larger share of part-time contracts or alternative contract forms compared to the NPOs. There are several examples of this in Sweden, Germany, Austria and Belgium, for example.

This development has created a double-edged concern related to the upcoming market opening: On one hand, there is a fear that new operators will provide wages and other employment conditions below a socially acceptable level, thereby decreasing the overall quality of employment in the whole sector (wage dumping). On the other, there is concern that former monopolists might try to prevent entry by introducing sector wide employment standards close to their own, creating disproportionate entry barriers (raising rivals' costs).

We have examined these effects by reviewing the relevant literature on the subject and by analysing the actual developments in Sweden, Germany, Belgium and Austria, since two have already liberalised postal markets and two are anticipation full liberalisation in 2011. We find no significant evidence of wage dumping in any of the countries. However, we do find that new operators in three out of the four countries have created wage pressure by applying wages below the level of the NPOs. We also find indications that two NPOs have tried to raise their rivals' costs through the implementation of sector-wide minimum wages close to their own wage levels, due to the existence of a pre-liberalisation wage premium at the NPO, cf. Table 6.4.

¹³³ The collective bargaining coverage refers to the entire economy, and not only the postal sector. Source: Eurostat (2008).

Table 6.4 Country case studies and main results

Country case study	Wage premium	Wage dumping	Wage pressure	Raising rivals' costs
Sweden	No	No	No	No
Germany	Yes	No	Yes	Yes
Belgium	Partially	No	Yes	Partially
Austria	Yes	Maybe	Yes	Yes

Note: Wage premium: Wages in the postal sector above wages in sectors with comparable skill levels; Wage dumping: Wages in the postal sector below wages in sectors with comparable skill levels; Wage pressure: Wages in the postal sector moving towards wages in sectors with comparable skill levels.

The proposal for a new postal law in Belgium prohibits postal operators from using self-employed in all activities except transport. However, we cannot find any evidence of NPO involvement in this process. The introduction of auxiliary postmen in Belgium with wages below the traditional postmen indicates a previous wage premium at the NPO. We find indications that the wage level paid to self-employed deliverers in urban areas in Austria in 2007 might have been at a below-market level.

Source: Copenhagen Economics.

Literature on deregulation and wages

One of the first and most frequently cited studies on deregulation and wages is provided by Card (1986), who analyses the impact of market liberalisation on the wages of on airline mechanics.¹³⁴

The author finds that prior to deregulation, airline mechanics in the US earned essentially the same wage at all airlines. In contrast, mechanics at the aircraft manufacturer earned 5 to 10 percent less. Thus, due to above-market prices and rent sharing between the airlines and their workforce, airline mechanics enjoyed a wage premium prior to market opening.

Deregulation encouraged the entry of new airlines, resulting in reduced employment at the established carriers and pressure on the wages of airline mechanics towards the wage level paid by comparable firms outside the industry (i.e. aircraft manufacturers). Five years after deregulation, airline wages were in line with those of manufacturers. That is, rent-sharing between workers and firms was greatly reduced as a result of deregulation.

Another important piece of research is provided by James Peoples (1998) in a study covering the trucking, railroad, airline and telecommunications industries.¹³⁵ Earlier research had found that wages in these industries were at least 14 percent higher than the wages in comparable industries before deregulation.¹³⁶ Moreover, above-market prices allowed carriers to pass on costs to costumers, which also contributed to the rent-sharing and high wages.¹³⁷

¹³⁴ Card D. (1986), "The Impact of Deregulation on the Employment and Wages of Airline Mechanics", *Industrial and Labour Relations Review* 39: 527-538.

¹³⁵ Peoples J. (1998), "Deregulation and the Labour market", *Journal of Economic Perspectives*, Volume 12, Number 3: 111-130.

¹³⁶ Hendricks, W. (1994), "Deregulation and labour earnings", *Journal of Labour Research*, Summer 1994, 15, 207-234.

¹³⁷ James, A. (1973), "The ICC and the Cartelization of the American Taicking Industry," *Quarterly Review of Economics and Business*, Summer 1973, 13, 13-47. Ehrenberg, R. (1979), *The Regulatory Process and Labor Earnings*. New York: Academic Press, Moore, T.G. (1986), "U.S. Airline Deregulation: Its Effects on Passengers, Capital and labor," *Journal of Law and Economics*, April 1986, 24, 1-28.

Peoples found that the shift from above-market prices towards competitive pricing made it unprofitable for employers to pass on higher wages that were not justified by higher productivity. Consequently, in a deregulated industry, larger emphasis on cost savings and the declining power of trade unions put a pressure on wages towards the market based level.

Literature on raising rivals' costs

Former monopolist's strategies to prevent entry by forcing other operators to apply sector wide standards and the underlying incentives to raise rivals' costs have been analysed for over forty years. However, the basic conclusions are the same:

The issue of "raising rivals' costs" was first examined by Williamson (1968) who argued that an industry-wide wage contract, increasing the costs of relative labour-intensive firms to a larger extent than the costs of relative capital-intensive firms, can be used to force labour intensive firms to withdraw from the market. In this way, an incumbent firm may accept high wage rates if this raises his rivals' costs to an entry deterring level.

Fifteen years later, Salop and Scheffman (1981) generalised Williamson's analysis to arbitrary cost functions without altering the basic conclusion: The increase in wage rate must have a larger impact on the competitors' costs than those of the dominant firm in order for the behaviour to be profit-maximising for the dominant firm. This conclusion was later confirmed by Rogerson (1984), who showed that it can be profit-maximizing for an incumbent firm to deter entry by a combination of limit pricing and raising exogenously determined fixed costs, also in a situation with symmetric cost conditions.

The models developed in the 1980's are very generic and are not tailored to any particular industry sector. However, when the German letter monopoly was about to be abolished and the wages at new operators were observed to be far lower than at the former monopolist, the interest became the topic of raising rivals' costs and its possible effects on competition regained interest, but in a postal-specific context.

In 2008, Shilov and Tourovsky adapted the dominant firm behaviour model to the context of statutory minimum wages in the postal sector. Their model assumes that the dominant firm has a labour-intensive production function, but a cost advantage relatively to its competitors (e.g. a well-established network, advanced logistics, and/or superior knowledge accumulated over time). The authors show that any wage increase increases the market share of the dominant company (up to a certain limit, depending on the cost advantage factor). In this way, the dominant firm's profits will decrease in the short term, but the profits and market shares of its competitors will decrease even more. Consequently, a minimum wage might affect the development of competition in the short term and potentially reinforce the position of the dominant firm in the long run.

The most recent research is provided by Wey and Heitzler (2010) who, based on the German postal market case, analyse the bargaining problem of an incumbent firm and a union

when the wage contract becomes binding for the entire sector. They show how minimum wage legislation in the form of the statutory sector-wide extension of a collective labour agreement can be used to deter entry or to drive existing competitors out of the market.

The existing literature on raising rivals' costs mainly concerns the situation in which the dominant operator raises his/her own as well as their rivals' costs. Although a situation where cost increases only affects rivals has been of less interest to academics, we find that this situation might be very important in practice. For example, this is the situation we observe when dominant postal operators try to extend their own cost level to all operators by imposing an industry-wide collective labour agreement.

6.4. CHANGES IN EMPLOYMENT CONDITIONS: THE SWEDISH EXPERIENCE

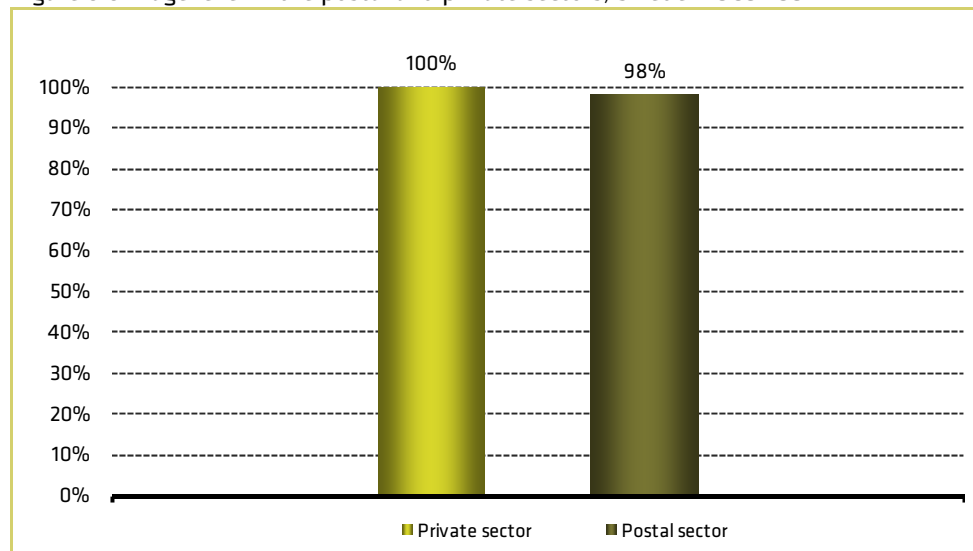
The main part of our Swedish case study is based on six interviews with seven representatives from stakeholders in the Swedish postal market: The former monopolist and NPO (Posten AB), its main competitor (Citymail), the trade union representing employees at both operators (SEKO), the employers' association representing both operators (Almega), and the National Regulatory Authority (PTS).

We do not find any signs of wages and employment conditions falling below market levels in similar sectors as a result of the entry of competition in Sweden. Neither do we find any signs of Posten trying to raise Citymail's costs. This is most likely the result of strong collective bargaining traditions and market-based wages in the postal sector already prior to liberalisation. However, we observe that postal sector wages, since market opening, have decreased slightly relative to private sector wages. This is most likely explained by a change in educational level and age structure in the postal sector.

Situation before market opening

In the late 1980's and early 1990's, before the Swedish postal market was opened up to competition, wages at the monopolist postal operator were regulated by a central public sector collective agreement. Despite the fact that, until 1991, Posten was the only postal operator, we observe postal sector wages at that time to be slightly lower than wages in the private sector, cf. Figure 6.6.

Figure 6.6 Wage level in the postal and private sectors, Sweden 1989-1991



Source: Copenhagen Economics based on SOU 2005:4

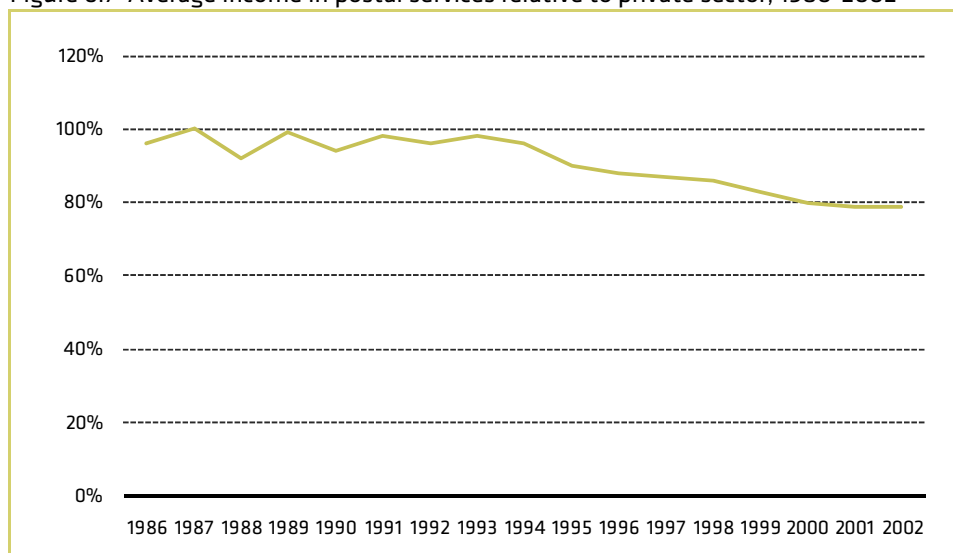
The similar wage levels indicate that there was, most likely, no pre-liberalisation wage premium in the Swedish postal sector.

Development after market opening

On January 1st 1993, the Swedish postal market was fully opened up to competition. However, Citymail, the operator that still is Posten's main competitor, had already started its distribution of industrial mail in Stockholm in 1991. One year after liberalisation, Posten was corporatized, meaning that the central public sector collective agreement in place was replaced by a private sector agreement. Whereas existing employees were guaranteed their existing employment conditions, the new agreement foresaw changes such as the introduction of a higher age of retirement and fewer annual vacation days for new employees. This was an adaptation to private sector law, not connected to the liberalisation of the market.

When looking at the wage development in the Swedish postal sector, we cannot find any strong evidence that Citymail's market entry has affected average postal sector wages in a negative way. However, we do observe a slight decline in average wages in the years after market liberalisation, cf. Figure 6.7.

Figure 6.7 Average income in postal services relative to private sector, 1980-2002



Source: Copenhagen Economics based on SOU 2005:4

We find that this decline is most likely explained by changes in the employment structure in the postal sector compared to the private sector.

Between 1989 and 2000, we observe an increased difference in educational level between the postal and the private sectors, with a larger proportion of primary level education and a lower proportion of secondary level education among postal sector workers relative to private sector workers. We also observe a shift in age structure, with a significant decrease in employees aged 25-44 and an increase in employees below 25 years old in the postal sector relative to the private sector, cf. Table 6.5.

Table 6.5 Conditions in the postal vs. private sector, Sweden 1989-2000

Parameter	Postal vs. private sector, change in percentage points, 1989-2000
Wage	-9
Employees with primary education	+20
Employees with secondary education	-18
Employees < 25 years old	+6
Employees 25-44 years old	-14

Source: Copenhagen Economics based on SOU 2005:4

This change in postal sector employment structure is most likely explained by two factors: Increased automation (reducing the need for skilled full-time employees at Posten) and Citymail's business model (hiring mainly young people without higher education to perform their distribution activities three days a week in larger cities).

In addition to wage changes, trade unions also fear that other non-wage employment conditions might be affected by the entry of new operators. In Sweden, we only observe one major change in Posten's employment conditions shortly after Citmail's market entry: The imple-

mentation of a full eight-hour working day for all employees. However, representatives at Posten, PTS and SEKO responded that this change was not a direct response to competition.¹³⁸

On the contrary, our interviews reveal that these changes had already been considered necessary prior to liberalisation but due to the strong power of trade unions, Posten's monopoly position, and the lack of a revenue target, it had been difficult to motivate any change. Citymail's market entry (eliminating the monopoly argument) and the upcoming corporatization - with a predefined revenue target in sight - changed this situation. In other words, competition was the tool, rather than the underlying reason to achieve structural change.

Another observation supporting the view that such changes were not a direct response to competition or market opening is the fact that similar changes in working time arrangements have also been undertaken in the Netherlands, for example, (more than ten years prior to market opening) and in Denmark (where the market is not yet fully liberalised).¹³⁹

Sweden has a tradition of strong trade unionism and high unionisation rates at Posten (over 95 percent in 2010). As Citymail entered the market in 1991, SEKO immediately started to recruit members among Citymail's employees. One year later, the first collective labour agreement was concluded. Despite a very low unionisation rate (still after more than 15 years not above 50 percent), the agreement covered all Citymail's employees. This was possible, mainly due to the strength of the Swedish industrial relations system, cf. Box 6.1.

¹³⁸ Jens Saversatm, international secretary at SEKO, Sture Wallander, Vice president for international relations at Posten AB, Pär-Ola Larsson, Pension specialist at Posten AB, Sten Selander, Head of the Postal Affairs Department at PTS, Joakim Levin, Analyst at the Postal Affairs Department at PTS.

¹³⁹ Price Waterhouse (1997).

Box 6.1 The unions' industrial relations system in Sweden explained

There are mainly three reasons why the collective bargaining situation in Sweden is rather different to many other European countries:

1. Trade unions always have the right to take industrial action to enforce an employer to sign the most relevant existing agreement.
2. If the employer for some reason refuses to sign such an agreement, the trade union can call a strike for its members at the workplace, and if there are no union members, it can still take industrial action, mostly by boycotting the firm. Consequently, the scope for wage dumping by new operators in the Swedish market is practically eliminated.
3. The existence of close co-operation and transparency in the negotiations between trade unions and postal operators. This is the main reason for the smooth process of reorganisation and the absence of conflicts, despite large lay-offs and changing working conditions:

"Posten has a strong tradition of dialogue and collaboration with the labour union. The co-operation has become deeper and wider over the years. The labour union is welcome to participate in processes of change at an early stage. Being a part of the process also means that we take a joint responsibility, for the result as such and to gain support for it in the entire organisation, says Kjell Strömbäck, chairman of ST. I have a positive view of our co-operation and our dialogue since I have seen substantial result of the work, says Alf Mellström, chairman of SEKO.

[...] Posten, SEKO and ST are regularly having open-ended conversations about questions relating to the labour agreement negotiations. This has moved the focus from Almega and the central labour union organisations and created a more informal way of working with more local support. This was one of the main reasons why Posten in November concluded a new collective labour agreement with the labour union without any conflicts."

"As an employer, Posten has a duty to negotiate with the unions before it makes decisions on major organizational changes. There is no minimum notice period regulated by contract. The Collaboration and Employee Participation Agreement includes provisions on addressing other notice issues. The agreement states that unions shall receive information at an early stage and shall have the opportunity to exert influence in order to increase understanding and participation in the changes that take place at Posten."

Source: Brandt and Schulten (2007), Posten (2007) and (2008)

Observations regarding attempts to raise rivals' costs

The collective labour agreements at Citymail are negotiated between the same trade union and employers' association as are Posten. However, the two operators belong to different sectors of the employers' association and there is therefore no industry-wide agreement in place.

¹⁴⁰ This, in combination with locally negotiated wages, means that Citymail could apply lower wages if they wanted to.

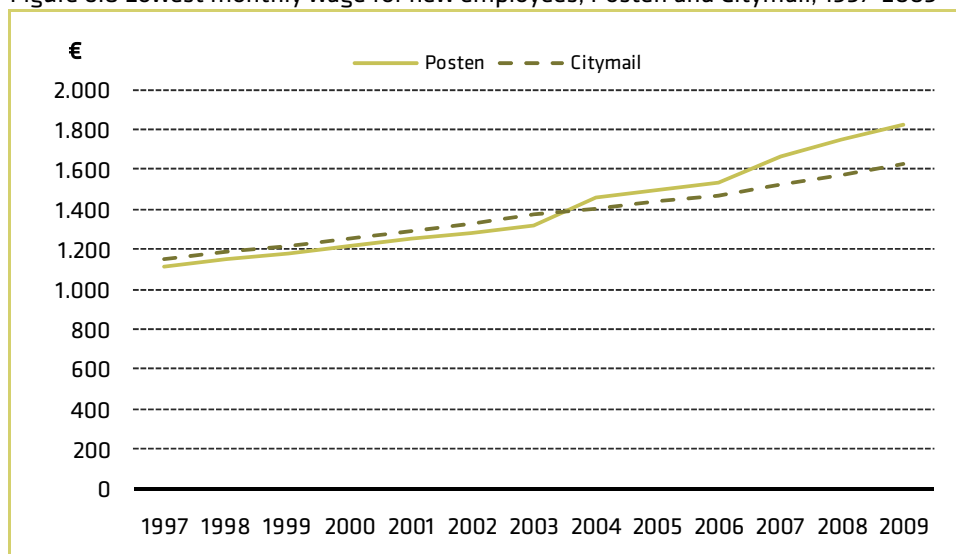
Despite this, we find the wage conditions at Citymail and Posten to be very similar. At both companies employees have a regulated minimum wage, predefined wage increases in the first years of employment (one year at Posten and two years at Citymail due to the larger turnover among Citymail's employees¹⁴¹), and thereafter wages are negotiated individually.

¹⁴⁰ According to Jens Saverstam, international secretary at SEKO, SEKO's goal is a common agreement in the future, guaranteeing all employees identical conditions.

¹⁴¹ The larger employee turnover at Citymail is mainly explained by the age structure of its work force, consisting mainly of young employees.

We observe that minimum wages at Posten and Citymail have remained almost identical as far back as we have been able to obtain data, cf. Figure 6.8.

Figure 6.8 Lowest monthly wage for new employees, Posten and Citymail, 1997-2009



Source: Posten and Citymail collective labour agreements, estimations based on percentage wage increases

This supports the statements from our interviews - that there is no competition on wages in the Swedish postal market. Throughout the period depicted in Figure 6.8, there have been only two occasions on which the wage development has differed between the employers.

The first occasion was in 2004 when Posten's wages increased disproportionately greater than Citymail's. This development is explained by the fact that SEKO suddenly noticed that Posten's minimum wage was effective (i.e. Posten had not been able to recruit at this wage before). SEKO therefore considered it crucial to negotiate a higher initial wage level.

The second occasion was in 2007, when negotiations led to larger wage increases at Posten. This is explained by the fact that SEKO's negotiations with Citymail in 2007 mainly focused on working time conditions, providing less room for wage increases. In this context, it should also be mentioned that SEKO considers it generally more difficult to negotiate minimum wages with Citymail than with Posten as a large proportion of Citymail's employees (due to high turnover of employees) are affected by the binding minimum levels. At Posten less than 10 percent of employees are affected by the negotiated wage levels.¹⁴²

The largest difference in working conditions (eliminated at the negotiations in 2007) has concerned work time flexibility. Whereas all employees at Posten since 1993 work eight hours per day, the employees at Citymail were, until 2007, subject to an arrangement of "over time" and "under time", where they could work more than eight hours one day, and

¹⁴² Interview with Jens Saverstam, international secretary at SEKO, 18 May 2010.

less than eight hours the next. The hours of “over time” were off-set against the hours of “under time”, without extra compensation.¹⁴³

Our findings so far indicate that wages in the Swedish postal sector were market based already prior to market opening. To test whether this is still the case, we compare wages in the postal sector to wages in other sectors hiring workers with the same skill level, to detect any systematic difference. If collective bargaining has forced Citymail to apply above-market wages, we would expect to observe postal sector wages to be higher compared to other sectors with similar skill levels. If Citymail has dumped wages in the postal sector, we would expect to observe postal sector wages significantly below those in comparable sectors.

We compare minimum wages at Posten and Citymail with minimum wages in hospitality, retail and warehousing – three sectors hiring employees with similar educational levels and skills as the postal sector. We observe that wages at Citymail and Posten correspond to those applied in the other sectors, cf. Figure 6.9.

Figure 6.9 Hourly minimum wage in various sectors, Sweden 1999 and 2009



Note: The wage comparison is made for employees who are at least 18 years old.

Source: Handelsanställdas förbund (2009); Almega Tjänsteförbunden and SEKO (2007); Posten (2007); HRF (2009).

Based on this, we conclude that the liberalization of the Swedish postal market has led to neither wage dumping, nor to an entry deterring wage level in the postal sector.

6.5. EXPERIENCE FROM OTHER COUNTRIES

We now turn to some other European countries to see whether they have similar or differing experiences. The countries we take a closer look at are Germany, Belgium and Austria.

¹⁴³ Interview with Fredrik Bister, CFO at Citymail and Jens Saverstam, international secretary at SEKO.

Germany

Whereas wage differences between the NPO and new competitors have never been an issue in Sweden, we observe the opposite scenario in Germany. Significant differences in pre-liberalisation wages triggered a series of events in Germany, leading to a controversial introduction of a sector-specific minimum wage (which later was declared illegal by the Federal Administrative Court) at a level below the NPO wage level but considerably above the wage level applied by the new operators.

The experiences from Germany have received large amounts of attention throughout Europe for two reasons. On one hand, NPOs claim that the wage differences observed in Germany confirm their concerns of wage dumping by new operators. On the other, new operators claim that the developments in Germany confirm their fears that an extension of the NPO wages to the entire postal sector will create a barrier to competition. Who is right? We find that in this particular case, new operators are right in their claim. Our conclusion is based on observations of pre-liberalisation wages in the postal and other comparable sectors.

It is through analysing the situation before market opening and the pre-liberalisation wages that we observe the main difference between Germany and Sweden. In Sweden, postal sector wages were already similar to private sector wages before liberalisation. Consequently, there was no room for new operators to attract qualified labour at lower cost. In Germany, this was not the case.

Prior to market opening in Germany, we observe a significant difference in wages and other non-wage employment conditions between the NPO, Deutsche Post AG (DPAG), and its competitors, cf. Table 6.6.

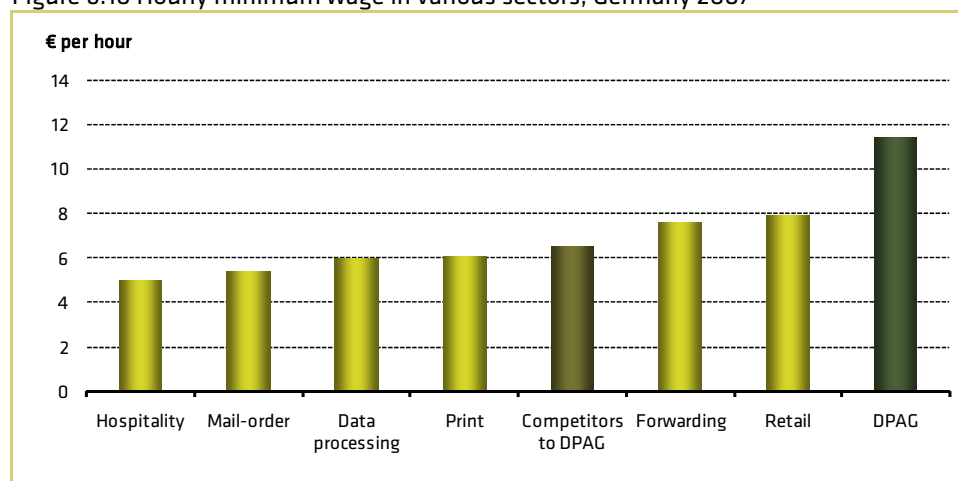
Table 6.6 Employment conditions at DPAG and competitors, 2007

State in 2007	DPAG	Competitors
Collective agreement	Company level	Mostly not applied
Average wage	13.03 €/hour	7.79 €/hour
Lowest wage applied	11.43 €/hour	6.54 €/hour
Weekly working hours	38.5	38.8
Annual vacation days	28	22.9
Employment structure	Over staffing	Full-time / part-time
Benefits	Pensions	No benefits
Personnel training	Well trained personnel	Generally untrained personnel
Volume per man-hour	High (approx. 130)	Low (approx. 30-40)

Source: Copenhagen Economics based on Dieke and Zauner (2007), Dieke and Wojtek (2008), Wey and Heitzler (2010), Brandt and Schulten (2007).

To assess whether this is an indication of wage dumping by the new operators or a wage premium enjoyed by the workers at DPAG, we look at minimum wages in a number of sectors with a skill level similar to the postal sector. When we do so, we observe the minimum wage level of DPAG's competitors to be well in line with minimum wages in comparable industries, cf. Figure 6.10.

Figure 6.10 Hourly minimum wage in various sectors, Germany 2007



Source: Copenhagen Economics, based on Dieke and Zauner (2007), Brandt and Schulten (2007)

We therefore conclude that employees at DPAG prior to market opening most likely enjoyed a significant wage premium.

In the light of the liberalisation of the postal sector (January 2008), the existence of a wage premium at DPAG provided the new operators with a comparative cost advantage. This cost advantage could, at least to some extent, compensate for the economies of scale, brand recognition and other advantages enjoyed by DPAG.

However, national law in Germany, as in several other European countries, provides the possibility of extending a company labour agreement to the entire sector if this would be in the interests of the majority of employees in the sector. In addition, a mechanism in the German Posted Workers Act can be applied for the same purpose.¹⁴⁴ This provided DPAG with an opportunity to eliminate the comparative advantage of its rivals by raising their labour costs to a level closer to its own lowest wage level.

In August 2007, a new employers' association (AGV Postdienste) dominated by DPAG and its subcontractors was created and one month later a collective labour agreement was signed with the trade union Ver.di. The agreement included hourly minimum wages of €8.00-

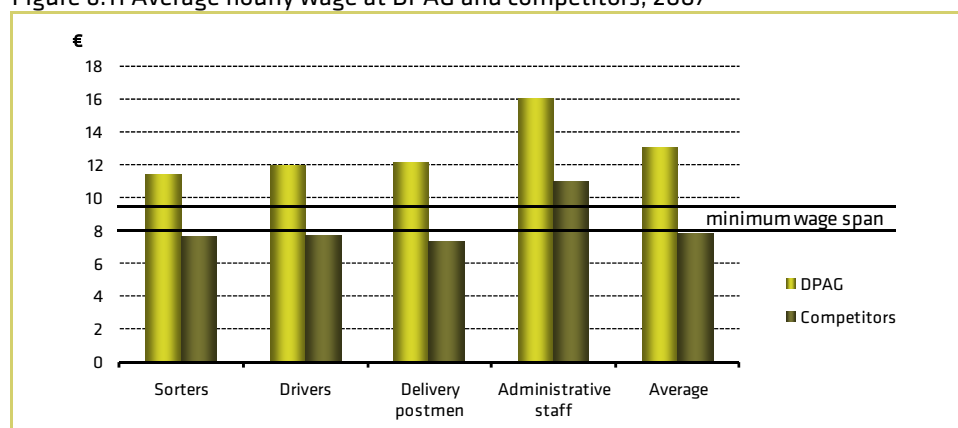
¹⁴⁴ The Posted Workers Act of 1996 provides the workers concerned with the protection of German statutory minimum standards in areas such as working time, paid leave, health and safety, maternity and equal treatment. Furthermore, the law stipulates that posted workers should be covered by the same minimum collectively agreed pay rates and collectively agreed provisions on paid holidays as German workers. This objective is accomplished by way of the extension of collective agreements. Such an extension applies the terms and conditions of a collective agreement to those workers who are not covered by any agreement because they are either not members of the signatory trade union or their employer is not a member of the employers' organisation which is party to the agreement.

€9.80 per hour and was intended to serve as the reference contract for the sector minimum wage.

As a direct response to this, the competitors of DPAG established a new employers' association, AGV Neue BuZ, signing a collective labour agreement with the new labour union GNBZ. The minimum wage agreed upon (€6.50 - €7.50) was filed as an alternative proposal to the sector minimum wage.¹⁴⁵

In December 2007, a government decree was issued by the German government, declaring the wage agreement between Ver.di and AGV Postdienste generally binding for all mail service providers as from 1 January 2008 (the date of market opening). In practice, this meant that all postal service operators whose main business activity was the collection, transport and delivery of addressed mail up to 1 kg were obliged to apply a minimum wage between €8.00 and €9.80, in most cases a wage level above the existing average wages at competitors, cf. Figure 6.11.

Figure 6.11 Average hourly wage at DPAG and competitors, 2007



Source: Copenhagen Economics, based on Wey and Heitzler (2010).

Almost immediately after the implementation of the new minimum wage, the PIN Group, one of DPAG's main competitors, claimed that the new wage forced the company into large lay-offs.¹⁴⁶ This was followed by a complaint with the Berlin Administrative Court, which declared the minimum wage invalid two months later.

After being brought to appeal by the German government, the Federal Administrative Court issued a final ruling in the case on procedural grounds in January 2010. The conclusion was that the federal government had infringed the rights of the plaintiffs by not organising an

¹⁴⁵ In 2008, the labour court of Cologne ruled that GNBZ, due to its insufficient independence from employers, does not have the legal standing as a trade union and thereby cannot sign collective labour agreements.

¹⁴⁶ This has also been a topic of debate as there are signs indicating that the large lay-offs at the PIN Group were also the result of poor management and an inappropriate business model with delivery in unprofitable, remote areas and little innovation.

additional hearing for them during the procedure that led to the adoption of the minimum wage and by that deprived them of the right to participate in the social dialogue. The plaintiffs were thereafter released from the obligation to pay the minimum wage.

The German experience illustrates the importance of carefully assessing the consequences of any sector wide extension of existing employment conditions. This could be done by comparing pre-liberalisation wages in the postal sector with wages in similar industries before concluding that low cost models of new operators are responsible for bringing employment conditions to a below market level. If pre-liberalisation wage levels and other non-wage employment conditions are above those applied in private sectors with a comparable skill level, an extension of these conditions to all operators in the postal sector will most likely have anti-competitive effects. To avoid anti-competitive effects, it is also important to include all social partners in the dialogue and not only those representing the largest share of employees in the sector. This is mainly due to the fact that smaller entrants operate under different market conditions compared to the NPOs (lacking economies of scale due to low volumes and a less than nation-wide network) and therefore they often introduce alternative business models based on low-cost labour models to compete with the established NPOs.

Belgium

The full liberalisation of the Belgian postal market will take place in January 2011. We do not find any signs that the Belgian NPO bpost has tried to raise its rivals' labour costs to deter the entry of new operators after this date. However, we do find indications that the upcoming market liberalisation has motivated the NPO to reduce its labour costs by increasing the flexibility of its work force and introducing changes to the collective labour agreement, thereby reducing the wage premium previously enjoyed by its work force.

Belgium has a large tradition of collective labour agreements and labour contracts are usually the norm. Although bargaining takes place at company level, company agreements can (similar to Germany) be extended to a whole sector by a royal decree. Bargaining at bpost is influenced significantly by the large share of civil servants (over 65 percent in 2009) with favourable employment conditions.

The most recent data on wage levels at bpost is from 2007, when the minimum gross monthly wage was 1,566 €. ¹⁴⁷ This is about 20 percent higher than the national statutory minimum wage at that time, 1,259 € per month. We have found indications that the difference between bpost and its competitors was approximately the same in 2009, which might indicate that workers at the NPO enjoyed a wage premium at that time. ¹⁴⁸

We do not find any indications that bpost has been actively trying to extend its own collective agreement to other operators (however, we find that the new postal law will most likely have a similar effect). Instead, to cope with the upcoming liberalisation and possible entry of

¹⁴⁷ Brandt and Schulten (2007).

¹⁴⁸ UNI Europa (2009).

new operators, bpost is trying to reduce its own labour costs and increase flexibility. For instance, in its strategic plan 2008/2009, bpost introduced the gradual replacement of 6,000 postmen by 12,000-15,000 part-time deliverers on temporary contracts (paid less than ordinary postmen), a structural change which should be promoted by encouraging employees over 50 to take part-time jobs in exchange of a financial compensation.¹⁴⁹

This strategy has been met with resistance from employees and trade unions and after negotiating and a whole series of strikes, the Board of bpost in January 2010 abandoned its plan in January 2010. Instead, a system with part-time employees on permanent contracts was introduced in the proposal for a new collective labour agreement. However, the monthly wage was lowered by 200€ and the duration of employment before receiving benefits such as meal vouchers was extended. At least two of the trade unions refused to sign the agreement.¹⁵⁰ The proposed reduction in wages and benefits indicates that the postal workers at bpost have enjoyed a wage premium that, with the introduction of a new employment form, would be partly eliminated.

In August 2010, bpost introduced the use of “auxiliary postmen” in its workforce. The tasks previously performed by the traditional postal workers are now divided between the auxiliary and the traditional postal workers. Whereas the traditional postal workers continue to handle pension payments and other mail services where special skills are required, the auxiliary postal workers take care of the delivery of ordinary mail (previously performed by the traditional postmen).¹⁵¹ The lower wage paid to the auxiliary postmen for performing these tasks further indicates that the postmen at the NPO previously have earned a wage premium and that the wages paid to the new postmen are more market based.¹⁵²

The high share of self-employed workers in the logistics and courier service companies that compete with bpost in the liberalised area today (there is no competition in the addressed letter market) has created the fear that liberalisation will lead to below market wages and employment conditions in the postal sector. In addition to the lower pay levels, high social security contributions (32 percent) in Belgium makes it even more attractive for cost-minimizing postal operators to hire self-employed workers.¹⁵³ Operators with self-employed workers stress that the delivery job is rarely the main source of income for such workers, but is rather a side job to earn some extra money. This implies that the self-employed workforce

¹⁴⁹ European Social Dialogue Committee of the Postal Sector (2010).

¹⁵⁰ SAP rood (2010), http://www.sap-rood.be/cm/index.php?view=article&cid=1034%3Acao-2010-bij-de-post-zware-achteruitgang-voor-het-personeel&Itemid=53&option=com_content&25262099bab4e2695d2f6af7274e90c1=2ecb8b1420d730edf250e262faff5aa3

¹⁵¹ Rtbf.be (2010).

¹⁵² The auxiliary postmen earn an hourly wage of €9.68, approximately 15% above the statutory minimum level but according to several sources significantly below the wage level earned by the traditional postmen at the NPO.

¹⁵³ Presentation by Joost Vantomme, bpost, at the meeting of the Social Dialogue Committee, Brussels 22 October 2009.

often contains a mix of people, ranging from students and housewives to retirees and immigrants.¹⁵⁴

Although a possible wage difference of 20 percent is lower than in Germany prior to liberalisation (competing operators' wages were on average 40 percent below those of DPAG in 2007), considering the high labour intensity, increasing new operators' labour costs by 20 percent might be enough to deter entry. This should also be considered in relation to the legal proposal for a new postal law that, as of the time of writing, is pending before Parliament. The proposal includes requirements on territorial coverage, delivery frequency and employment conditions applied by postal operators active in delivery of addressed items. Specifically, the law addresses employment by stating that for the collection, sorting and distribution of items of correspondence that belong to the universal service, (all) operators shall make use of employees (i.e. no self-employed workers). Transport activities may be outsourced.

Although the proposal is not yet formally enacted we find indications that it has made alternative operators reluctant to enter the market. For instance, a commercial manager at Belgische Distributiedienst (BD), a subsidiary of TNT with 80 percent of the Belgian market for unaddressed items, states that BD have considered entering the addressed segment, but that restrictive requirements foreseen in the new law have made them change their mind. Especially problematic is the requirements on employment conditions, cf. Box 6.2.

Box 6.2 Entry deterring requirements in new postal law from competitors' point of view

According to the legal proposal for a new postal law, which is pending before the Parliament in Belgium at the time of writing, licensed postal operators must deliver mail at least twice a week within two years, and cover 80 percent of the Belgian territory with their deliveries within five years. In addition to this, the proposal imposes restrictive requirements regarding the use of self-employed workers (only the transport of mail can be done by self-employed persons, whereas collection, sorting and distribution must be done by people on the payroll).

According to Marloes Otten, commercial manager at BD, the regulations of part-time employment in Belgium, in combination with the abolition of self-employed workers in all activities except transport, might constitute an entry deterring barrier for new operators. Hiring people on a part-time basis (the cheapest alternative) would likely lead to overcapacity if new operators with initially low delivery frequency are forced to pay also for unproductive hours. The opportunity to hire self-employed workers on a per-household or per-piece basis, would increase flexibility and facilitate small scale entry.

According to representatives from CGSP Poste/ACOD Post, the trade union representing employees at the NPO, they are lobbying to get the current conditions at bpost transferred as a sector wide standard in the new postal law.

Source: Interview with Marloes Otten, Commercial manager at BD, 21 June 2010, E-mail from Michel Meyer, secretary general at CGSP Poste/ACOD Post, 6 September 2010.

Austria

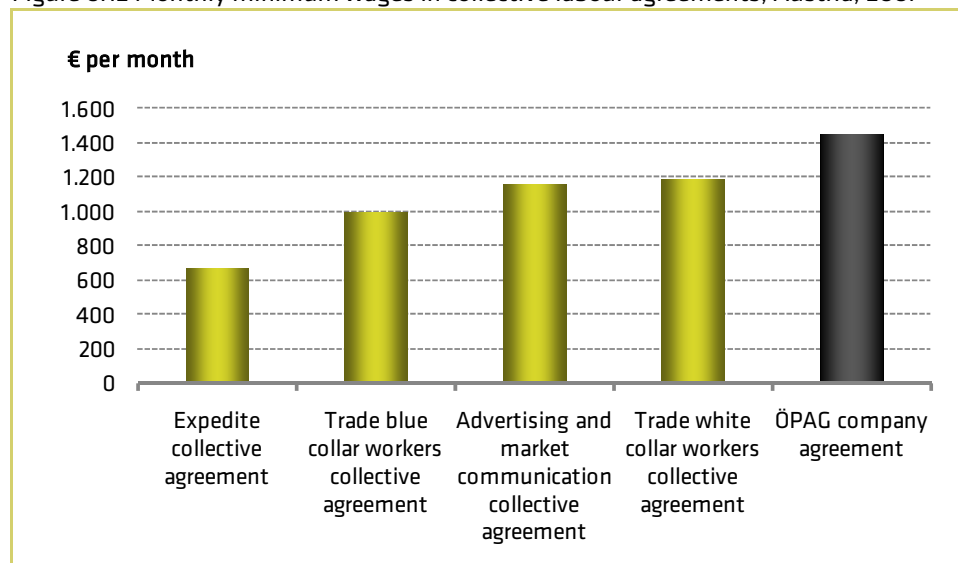
We find indications that the Austrian NPO, Österreichische Post AG (ÖPAG), together with the trade union, has made attempts to raise its rivals' costs by making its own wage level binding for the entire sector. However, after these attempts failed, we observe that the NPO

¹⁵⁴ Interview with Marloes Otten, commercial manager at Belgische Distributiedienst, 21st June 2010.

has been trying to reduce its own labour costs instead by introducing a collective labour agreement similar to the existing sector agreements. This behaviour indicates that there previously has existed a wage premium in the Austrian postal sector which has now been reduced.

Austria is one of the countries in Europe with the highest collective bargaining coverage (95 percent of all employees are covered by sector-wide collective agreements). However, due to the earlier monopoly status of ÖPAG, there has never been a sector-wide agreement in the postal sector. Instead, the employees at the former monopolist were covered by a civil servants contract, a status remaining until the first formal privatisation in 1996 when a company labour agreement was implemented.¹⁵⁵ Operators engaged in postal activities beyond the letter market are regulated by several sector agreements with varying wage levels. We observe that the minimum wage applied at ÖPAG in 2007 was significantly higher than in any other agreement in the sector, cf. Figure 6.12.

Figure 6.12 Monthly minimum wages in collective labour agreements, Austria, 2007



Note: The expedite collective agreement is based on 22 working hours per week.

Source: Copenhagen Economics, based on Haidinger and Hermann (2008) and Brandt and Schulten (2007).

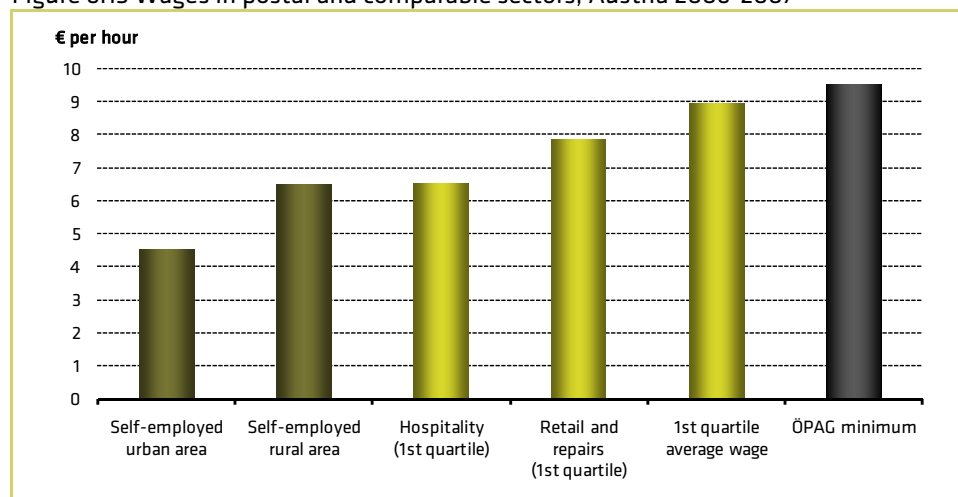
The observed difference in minimum wages can be interpreted as a wage premium of at least 20 percent which is enjoyed by the workers at ÖPAG. As a further confirmation of this, we observe that the *minimum* wage at ÖPAG in 2007 was at level with the *average* wage of a private sector blue collar worker that same year, implying that the *minimum* wage of a private sector blue-collar worker was significantly below this level.¹⁵⁶

¹⁵⁵ Haidinger and Hermann (2008); Brandt and Schulten (2007).

¹⁵⁶ Statistik Austria, http://www.statistik.at/web_de/statistiken/soziales/personen-einkommen/allgemeiner_einkommensbericht/index.html

We note that it has been common practice among Austrian operators who might consider entering the letter segment to use self-employed workers in delivery. This was the case of feibra and Redmail (the main competitors of ÖPAG in 2007, for example, who were active in the distribution of newspapers, unaddressed mail and advertising material). According to estimates of the Austrian Works Council, these self-employed deliverers were paid wages ranging from 4-5€ per hour in urban areas to 6-7€ per hour in rural areas in 2007.¹⁵⁷ We observe that in most cases, these wage levels were below those applied in comparable low-skilled sectors and significantly below the monthly minimum wage at ÖPAG, indicating a below-market wage level applied by these competitors in urban area delivery, cf. Figure 6.13.

Figure 6.13 Wages in postal and comparable sectors, Austria 2006-2007



Note: Wages for self-employed and at ÖPAG from 2007. Wages in hospitality, retail and repairs and 1st quartile average wage from 2006.

Source: Haidinger and Hermann (2008), Statistik Austria (2010).

However, the Works Council also reported that feibra and Redmail were practically unable to find Austrian/EU citizens or migrants with a working permit who were prepared to work for these wages. The consequence was a delivery workforce consisting mainly of third country nationals, often with an uncertain residency status.¹⁵⁸

Since 2009 there is a national minimum wage level in Austria covering almost all private sectors of the economy. The level of this monthly minimum is, at the time of writing, €1,000, but according to representatives from the Austrian trade union VIDÄ, employers are encouraged by the trade unions to raise this level to €1,300. The same representatives have also informed us that the Austrian trade unions together with ÖPAG wanted to enforce a sector-wide labour agreement based on the wages paid by ÖPAG.¹⁵⁹ Such an agreement would imply a significant cost increase for many operators (doubling the labour costs for those that

¹⁵⁷ Haidinger and Hermann (2008).

¹⁵⁸ Haidinger and Hermann (2008).

¹⁵⁹ Cornelia Berger, policy officer at UNI Europa and Austrian trade union representatives Verena Wiesner and Harald Voitl, 9 July 2010.

today pay €4-5€ per hour) and might create a barrier deterring them from entering the letter market.

However, the attempts to extend the agreement of ÖPAG failed due to general political resistance and opposition from the Austrian Chamber of Commerce. After this, ÖPAG instead agreed on a new collective agreement as from 1st August 2009. This agreement increased the flexibility of ÖPAG by introducing conditions similar to those of other employers in the sector. This indicates that the wage premium at ÖPAG now might be eliminated.

According to a recent report by Allen & Overy (2009), the possibility of a self-employed business model emerging in the delivery of addressed mail should (due to low acceptance of self-employed in delivery of addressed items) be very limited in Austria. The new postal law, passed in the Austrian Parliament in November 2009 and coming into force 1st January 2011, can be seen as confirmation of this. Among other things, it prescribes that licensed operators are obliged to comply with the relevant collective labour agreements (one of which contains prohibitions on the use of self-employed).¹⁶⁰

We find indications that this requirement has probably already had some entry deterring consequences. For instance, according to representatives from VIDA, the abolition of self-employed workers in postal services was the main reason for Redmail's decision to only focus on the distribution of newspapers in January 2010.¹⁶¹ Consequently, there is now only one main alternative to ÖPAG in the distribution of mail, advertising material and newspaper delivery in Austria. This is feibra, which has actually been 100 percent owned by the NPO since 2005.

Initiated by the new postal law and the pressure from trade unions, feibra has recently made a drastic reduction in its share of self-employed deliverers. Making up almost 90 percent of the workforce in 2007, self-employed deliverers have not been used at feibra since 1 May 2010.¹⁶² Despite this development, the representatives of VIDA suspect that self-employed workers are still used in the sector to a large extent. However, as operators using these types of contracts cannot obtain a license from January 2011, the threat of wage dumping in the sector should be eliminated.

In the light of our observations, we do not see any reason to abolish the use of self-employed mail deliverers per se, since this type of flexible contract form adds value both to certain types of workers and to new postal operators trying to compete with the NPOs. To alleviate the potential problem that an extensive use of self-employed workers might create, we in-

¹⁶⁰Austrian Federal Ministry for Transport, Innovation and Technology (2009).

<http://www.bmvit.gv.at/telekommunikation/post/recht/downloads/a1232009.pdf>

¹⁶¹ Cornelia Berger, policy officer at UNI Europa and Austrian trade union representatives Verena Wiesner and Harald Voitl, 9 June 2010.

¹⁶² Cornelia Berger, policy officer at UNI Europa and Austrian trade union representatives Verena Wiesner and Harald Voitl, 9 June 2010.

stead recommend that self-employed workers with the mail delivery job as their primary source of income should be guaranteed an hourly minimum wage corresponding to the national minimum through regulation. This is currently the situation in the Netherlands where the self-employed contract form is widely used, for example.

6.6. EMPLOYMENT DRIVERS IN THE POSTAL SECTOR

In this section, we examine the drivers of postal sector employment to determine whether the observed declines in recent years can be attributed either to the entry of new competitors or to technological development in terms of e-substitution and increased automation. Our approach has been threefold: First, we have reviewed existing literature on the topic; second, we have tried to estimate (by regression analysis) the employment effects of three different drivers; and third, we have looked at empirical evidence to reveal the true drivers of employment.

We find that liberalization and competition have not been important drivers of the observed changes in postal sector employment to date. In fact, our research indicates that technological development (mainly through e-substitution and automation) is a more important driver of postal sector employment.

Literature review

Postal sector employment is affected by a number of underlying factors. These can be either internal (e.g. depending on recruitment policy, size of the firm, growth and expansion plans) or external (e.g. supply and demand, competitive pressure or other forces causing the organisation to change). Despite a widespread interest in employment issues, there is little research in this area. One attempt to estimate the impact of employment drivers in the postal sector was made by Price Waterhouse (1999), who identified five primary drivers of postal sector employment:

1. Demand for postal services;
2. Evolution of competing technologies;
3. Trends in automation;
4. Liberalisation at national levels and at the EU level;
5. Organisational change within the postal operators.

To derive the impact on the level and structure of postal sector employment, these factors were analysed in turn. Our main conclusions were the following:

1. Increase (decrease) in the demand for postal services increases (decreases) mail volumes, and consequently the derived demand for labour increases (decreases). The net effect on employment depends on many factors, such as the degree of automation, flexibility of the labour market, political pressure to maintain employment and human resource management.

2. E-substitution will, on one hand, reduce employment by decreasing the demand for letter services and increasing the demand for hybrid mail. On the other, more e-communication, leading to more e-commerce, will increase employment. The overall employment effect is found to be negative.
3. Automation will likely lead to reductions in employment, while at the same time the development of hybrid and electronic mail, and the introduction of new value-added services probably will have a positive, but limited, employment effect.
4. The effect of liberalisation on employment depends on a variety of factors such as the structure of regulation in place, the scope and design of liberalisation, the extent of competition, the quality of services and productivity level of the NPO, and demographic and geographic factors influencing the costs of providing universal services. Liberalisation is also closely related to the other employment drivers, particularly organisational change. The effect of liberalisation on overall employment is difficult to foresee. On one hand, it creates a negative effect on employment through incentives to increase productivity and/or reduce the scope or nature of the universal service provided. On the other, it would have a positive effect on employment through additional delivery networks.
5. The reorganisation of NPOs to reflect more commercial principles and a more profit-oriented focus may result in increased rationalisation and thus affect employment levels negatively.

Hence, the underlying factors affecting postal sector employment are often interlinked and it is therefore difficult to quantify the individual effects on employment stemming from the various drivers.

Estimation of employment drivers

We have tried to estimate the relative effect on NPO employment stemming from parameters such as the change in overall demand for traditional letter post, increased competition and technological development in terms of e-substitution and automation of production processes.¹⁶³ Formally, the model applied is:

Change in employment = f(change in overall demand, change in e-substitution, change in the level of competition)

Our results indicate that only e-substitution has a significant effect on employment. When increasing the share of the population that uses the internet for e-mailing purposes by one percentage point, employment at the NPO decreases by 0.7 percent. We find a small and insignificant employment effect stemming from changes in GDP, and we cannot find any relation between employment changes and the level of competition, cf. Table 6.7.

¹⁶³ Due to scarce availability of data on automation, this variable was excluded in the final estimation to provide a model with more observations.

Table 6.7 Impact of regression variables on NPO employment

Variable	Estimated coefficient	Average change (percentage points per year)	Impact on employment (percentage per year)
Change in e-substitution	-0.7	4.1	-3.0
Change in real GDP	0.1	1.8	0.2
Change in competition	0.03	0.6	0.0
Result employment			-2.8

Note: we did not have sufficient data on automation to include automation in the estimation.

Source: Copenhagen Economics

However, these results are not very robust. This is neither due to the estimation method as such nor to the choice of parameters, but instead to four fundamental data problems, c.f. Box 6.5.

Box 6.3 Data challenges when estimating drivers for employment in postal sector

There are four fundamental data problems:

1. A too small variation in the competition parameter. There has been a very low development in competition. Since there has been minimal development of competition, we cannot identify the effects of competition statistically.
2. An imprecise indicator of competition. After examining various data sources, (including Eurostat and Amadeus databases) without finding any viable alternative, we used an assessment made by the NRAs plus indicators in the previous main development studies as indicator for competition.
3. A data set with too few observations. Since we mainly rely on existing data collected in previous studies, our panel only includes three observations per country. This makes it difficult to draw any robust conclusions from the results obtained.
4. A particular difficulty in finding data on automation. There is no database or organization (that we know of) that gathers this data. We have been in contact with various postal sector organizations as well as producers of sorting and other postal equipment without any success. Relying on data from NRAs or NPOs themselves has therefore resulted in a very incomplete data set. In addition, the provision of information on investments in technology in the financial reports of the NPOs is very scattered.

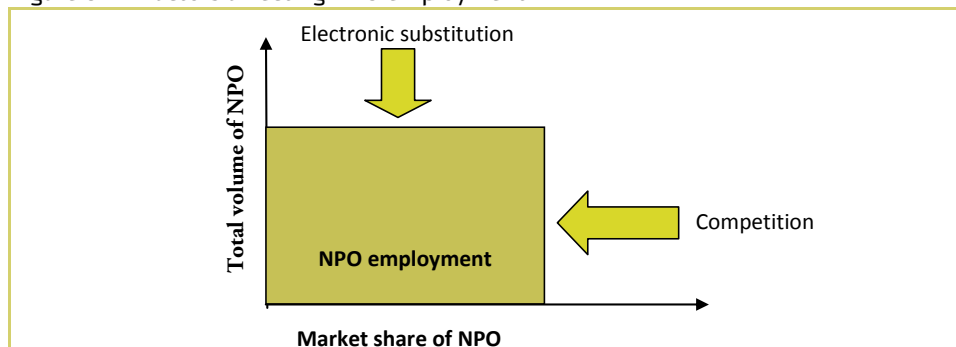
Source: Copenhagen Economics

Our estimation methods, data sources and estimations results are described in further detail in Appendix B.

Empirical observations

The level of NPO employment is directly derived from the size of the NPO's activities. These activities are in turn affected by a number of factors, threatening to reduce volumes and market share (and thus employment) of the NPO. Two of these factors are e-substitution and competition, cf. Figure 6.14. The question is: Which of the two has the largest impact on NPO employment?

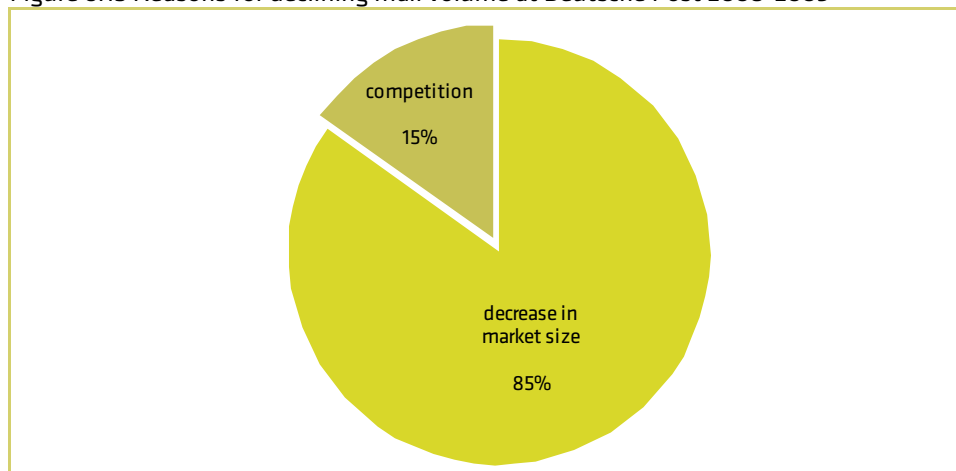
Figure 6.14 Factors affecting NPO employment



Source: Copenhagen Economics, based on European Social Dialogue Committee of the Postal Sector (2010).

Our estimations suggest that e-substitution has had a significant impact on employment and that, so far, competition has had no impact. Although there is little robustness in these results, we find them to be in line with what we observe empirically. For instance, we observe that the declining volumes and revenue (reducing the optimal labour force size) experienced by Deutsche Post in 2008-2009 are not explained by competition to a significant degree, but rather by a shrinking postal market. In 2008-2009, the revenues of DPAG's mail division decreased by €207 million, of which 85 percent (€176 million) was caused by a decrease in the German postal market (declining volumes, e.g. through e-substitution) and 15 percent (€31 million) by loss of activities to competitors, cf. Figure 6.15.

Figure 6.15 Reasons for declining mail volume at Deutsche Post 2008-2009



Note: Changes are measured in revenue terms. Decrease in revenues due to declining mail market: 87.7 percent of €6.5 million minus 87.7 percent of 6.3 million = €175,400. Decrease due to lost market share: 0.5 percent (87.7 minus 87.2) of €6.3 million = €31,500. Total revenue loss: €206,900. Out of this loss, 15 percent (31.500 / 206,900 = 0.15) is caused by lost market shares, the rest is due to the declining market.

Source: Copenhagen Economics based on Deutsche Post (2010), and Deutsche Post (2009).

The relationship between increased e-substitution and decreases in mail volumes handled by the NPOs is acknowledged by several NPOs, cf. Box 6.4.

Box 6.4 The impact of e-substitution on mail volumes – quoted experiences

Österreichische Post, Austria

“The increasing use of electronic communications leads to a slight but ongoing decline each year in letter mail volumes.”

Post Danmark, Denmark

“A strong increase in the use of e-mails, Internet and other electronic communication has implied that the postal volume in Denmark has decreased by one quarter in only three years.”

Deutsche Post, Germany

“The increasing use of electronic communication is resulting in ongoing shrinkage of the market, a trend that has been intensified by the economic crisis. In this economic climate, private customers posted fewer letters than in the previous year.”

Itella OY, Finland

“The total B2B letter volume has halved between 1991 and 2009, based on increased use of electronic communication alternatives”

CTT Correos, Portugal

“Electronic alternatives for physical delivery that have had, in the past, slightly affected letter post volume, is estimated to affect mail volumes with an annual decreasing of -2 percent to -3 percent, in the short term.”

Posten AS, Norway

“Since 2000 addressed letter mail volumes have decreased by 29 percent, mainly due to substitution to electronic alternatives and in 2008-2009 also due to the financial crisis.”

Source: Österreichische Post (2009), Deutsche Post (2010), Supply chain magasin (2010), Country fiche appendix, indicator x.6.4.

The indicative results from our regression analysis are also supported by other empirical observations showing that increased automation has had a direct impact on employment in the sector. Based on data for 19 countries¹⁶⁴, we find that automation has increased by 4.4 percentage points per year 2007-2009 on average. Increased automation reduces the need for manual work in stages of the postal production process that previously have been very labour intensive (primarily sorting). This is confirmed by, among others, Eurofound, stating:

“Technological innovation and the permanent reorganisation of production have had numerous consequences for workers. The most evident has been employment cutbacks in most of the large national companies.”

Source: Eurofound (2007), Industrial Relations in the Postal Sector.

Three examples of where the introduction of improved sorting technology has had a direct effect on the number of employees are provided by the NPOs in Finland, Denmark and the UK, cf. Box 6.5.

¹⁶⁴ AT, CH, CZ, DE, EE, EL, FI, FR, HU, IE, IS, LU, MT, NL, NO, PT, SE, SI, UK.

Box 6.5 Automation and its effect on employment – empirical observations

Finland

The Finnish NPO Itella is introducing new centralized sorting technology in 2010 as part of a larger restructuring programme, implemented to cope with decreasing mail volumes and e-substitution. By the end of 2010 four out of seven sorting centres will use new automated processes in the sorting of first- and second-class letters, domestic addressed direct marketing and part of the magazines. Itella estimates that the increase in efficiency will correspond to 360 man years in 2010, corresponding to over 400 full-time employees. In 2010, the foreseen decrease in the number of jobs within Itella caused by rationalization measures is slightly above 2 percent.

Denmark

The strong increase in e-communication has decreased the volume of traditional letter mail in Denmark by 25 percent over a period of three years. According to the manager of the production and transport department in post Denmark, this development has forced Post Denmark to see its future role in the postal market in a different light.

One way of adapting to the new environment has been extensive investments in automation. Three to four years ago, 70 percent of mail items were sorted mechanically. Today, 90 percent are. As a result, several thousands of employees have lost their jobs over the last dozen years.

UK

In December 2009 Royal Mail announced that modernised sorting had finally turned a long fall in letters revenue to a profit. Due to a combination of new and upgraded sorting machines in mail centres means more than 80 percent of the mail is now automatically sorted down to the level of the postman or woman's walk. The increased automation has created cost benefits as well as changes in working practices. For instance, everyone is now working all the hours for which they are paid, and the working flexibly has increased. As a result, there was a further reduction in the number of people working for Royal Mail during the second half of 2009 with 5,000 people leaving the business.

In addition to these changes, new, fast sorting machines for larger items such as catalogues and magazines have also been installed. By December 2009 £1.3 billion had been invested in modernisation with a further £0.7 billion planned by the end of 2011, expecting efficiency gains to enable further decreases in employment.

Source: Itella (2009), Royal Mail (2010), Supply chain magasinet (2010)

Another way of assessing the relative impact of various factors on employment is by comparing the changes in e-substitution, competition, mail volumes, automation and employment respectively in countries across the EU. Looking at yearly changes between 2007 and 2009 in 19 countries¹⁶⁵ we find that NPO employment has decreased approximately just as much as the total mail volume in the market, whereas e-substitution and automation have increased considerably more and competition has increased much less. E-substitution and automation are thus more likely to have a larger effect on NPO volumes and employment, cf. Box 6.6

¹⁶⁵ The 19 countries selected are those where data was available for at least 4 out of 5 indicators; AT, CH, CZ, DE, EE, EL, FI, FR, HU, IE, IS, LU, MT, NL, NO, PT, SE, SI, UK. Due to increases in unaddressed mail volumes by 525% over the two years, SK was excluded from the sample.

Box 6.6 The relative impact of three employment drivers – comparing changes

By comparing the average yearly changes in NPO employment with average yearly changes in e-substitution, competition, mail volumes and automation 2007-2009, we are able to say something about the relative importance of the various factors for employment levels in the postal sector. We find that:

- NPO employment and total mail market volumes have decreased approximately just as much, by 2.4 and 2.3 percentage points per year respectively;
- E-substitution has increased by 9.2 percentage points per year;
- Automation has increased by 4.4 percentage points per year;
- Competition has increased by 0.9 percentage points per year.

The largest effect on employment levels does therefore most likely stem from e-substitution and automation and not from competition. This conclusion is also supported when looking at individual countries, such as Greece and the Netherlands.

Yearly changes in five variables, percentage points per year 2007-2009

Variable	Netherlands	Greece	Average, 19 countries
Employment	-1.5	-6.2	-2.4
Mail volumes	-3.0	+0.5	-2.3
E-substitution	+3.8	+23.8	+9.2
Automation	+13.0	+15.0	+4.4
Competition	+0.1	+4.1	+0.9

Source: *Copenhagen Economics*.

Chapter 7 VAT

7.1. MAIN FINDINGS AND RECOMMENDATIONS

In this chapter we examine the current VAT treatment of the postal sector.

We conclude that the current VAT treatment of postal services in most Member States distorts competition. The problem is that the USPs may exempt some of their services from VAT, but competitors cannot. This lack of a level playing field creates economic distortions. The exempt operators and taxable operators may not be able to compete efficiently in all markets and this is a barrier to the creation of the Internal Market in postal services. Moreover, it is also problematic that the scope of the exemptions is not always clear and that different States interpret it differently. For example, in some Member States it is debatable whether the VAT exemption only applies to services within the USO or to other services provided to the public by the USP.

The current system with exemptions for “public postal services” has its roots in times when competition in the postal sector was non-existent. Nowadays, the objectives of market opening have created a need to align the VAT system with this objective, especially as the objective being pursued by the VAT exemption is safeguarded by the universal service obligation as envisaged by the Postal Directive. The presence of VAT exemption for certain postal services has often been motivated by consumer protection, since the burden of VAT, which is a consumption tax, falls on the end-user. However, in light of the affordability requirements in Article 3 of the Postal Directive, it is debatable whether selective tax exemptions are at all necessary to ensure reasonably priced postal services.

We recommend that the current system based on exemptions should be reformed to comply with the objective of market opening. We suggest that either the scope of USO is reduced, so that the scope of VAT exemptions is minimised (for example to only stamp letters), or that VAT is implemented on all postal services. This would remove economic distortions.

The first possibility is to reduce the scope of the USO, reducing the VAT exemption so that the part of the market subject to the distortionary VAT exemption is diminished. This solution can be implemented at national level. Reducing the scope of USO (e.g. to cover only stamp letters) could reduce distortions but could result in other regulatory problems, especially if the VAT exemption is directly linked to the USO.

The second possibility is to implement VAT on all postal services. This can be done by charging the standard VAT rate uniformly on all postal services. Doing this will harmonise USP and competitor treatment for VAT purposes. However, because VAT would be charged on all services, consumers will experience higher prices as a result.¹⁶⁶ To mitigate this, the reduced rate could be applied to services within the USO area.

¹⁶⁶ The increases would depend on the VAT rate and the degree of pass-through. With full pass through, introducing the VAT will have two effects on prices: on the one hand, prices will drop because operators would be able to recover input VAT, on the other hand, prices will increase as VAT is added to the consumer price. On the whole,

Neither introducing the standard rate nor a reduced rate is unproblematic, however. The standard VAT rates are not harmonised in Europe, meaning that standard VAT in Denmark is higher than standard VAT rate in Germany. This can create cross-border supply problems in the form of re-mail, for example. Likewise, introducing the possibility of applying the reduced VAT rate in the postal sector would require a change to the current VAT Directive, which requires a unanimous approval of all Member States. Moreover, applying reduced rates would not eliminate the pass-through effect (i.e. price increases for consumers) altogether – it would only reduce its size.

Introducing VAT in the postal sector would also spark indirect price effects for those parts of the economy which are currently VAT exempt, such as financial services or government services. On one hand, introducing a VAT on USO would make the services more expensive. On the other, it will also have an opposite effect because competition and removal of a distortion in the market for inputs¹⁶⁷ will drive down prices for postal services.

7.2. SECTOR OVERVIEW

Although the situation differs between Member States, the postal sector generally continues to receive special VAT treatment. Historically, many Member States have been exempting universal postal services on the grounds that they constitute a “public postal service”. In today’s environment with more competition this special treatment creates distortions. A question therefore arises as to whether VAT exemption is necessary in today’s environment and if so, what should the balance be between public interest (exemption) and competition (taxation).

The current treatment causes distortions in a market in which the two types of operators are increasingly competing. VAT-exempt corporate customers prefer the services of USPs while VAT-paying customers prefer the services of private operators. In other words, if private operators want to supply to VAT-exempt customers, they would need to be much more efficient than the USP. By the same token, USPs may lose customers to competitors because business clients cannot recover the VAT on the services they purchase from them.

The legal framework

VAT in the postal sector is currently regulated by the CVSD as further interpreted in the ECJ case law.

The postal sector has historically enjoyed an exemption from VAT. Article 13 of the sixth VAT Directive (77/388/EEC) of May 17, 1977, required postal services to be exempted from it. In 2006, the sixth VAT Directive was replaced by the current so-called Common

prices are likely to rise, but the increase is likely to be less than the standard VAT rate in a given country (between 15 – 25 percent).

¹⁶⁷ The market for inputs refers to the procurement of postal services by mailers.

VAT System Directive (CVSD)¹⁶⁸. It maintained the exemption for the postal sector, replacing Article 13 with Article 132:

- Article 132(1)(a) exempts “*the supply by the public postal services of services other than passenger transport and telecommunications services, and the supply of goods incidental thereto;*”

Furthermore, Article 135 of the CVSD contains provisions which describe exemptions to be granted to the activities of the postal sector:

- Article 135(1)(h) – “*the supply at face value of postage stamps valid for use for postal services within their respective territory, fiscal stamps and other similar stamps;*”

Finally, the so-called “stand-still clauses” in the CVSD allow Member States who used to exempt postal services from VAT to continue to extend the exemption to “the supply of telecommunications services, and of goods related thereto, by public postal services;” cf. Annex X, Part B (3) of the CVSD.

The current EU VAT exemption is, in most cases, not applicable to the provision of postal services by private operators – except for the case where a private operator would be subject to USO and be the designated USP.

The above provisions of the CVSD have been interpreted by the ECJ in the TNT Post UK Ltd. case C-357/07, following the ruling from April 2009, cf. Box 7.1.

Box 7.1 TNT Post UK Ltd. case C-357/07

The claimant, TNT Post UK Ltd. challenged the fact that VAT exemption was granted only to Royal Mail, while other providers were required to charge VAT on their products. The VAT exemption for a “public postal operator” is provided for in Article 132 (1)(a) of the CVSD.

“The ECJ interpreted the term “public postal services” (...) to cover public and private operators who undertake to provide all or part of the universal postal service (...).”

Regarding the extent of the exemption, “*the ECJ clarified that not all the services of an operator as described above – regardless of whether it is a public or private operator – are exempt, irrespective of their nature. In particular, individually negotiated services adjusted to the customers’ special requirements do not serve the public interest, as a prerequisite for a tax exempt universal postal service.*”

Source: Adapted from KPMG AG (2009)

VAT treatment in Member States

At the national level, the legal basis for VAT treatment of the postal sector is determined by Acts transposing the CVSD into national legislation¹⁶⁹. Member State treatment of the postal sector can be classified into four different regimes:

- VAT on all products;
- VAT exemption on reserved area;
- VAT exemption on the USO (we note the different scope of USO among countries);

¹⁶⁸ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax.

¹⁶⁹ Cf. indicator x.2.3 for reference to legal basis for the VAT treatment on the national level.

- VAT exemption on all postal services.

Five countries - Finland, Sweden, Slovenia, Norway and Switzerland - currently apply full VAT taxation on all postal services, including all the services of the national postal operator.¹⁷⁰ Bulgaria, Liechtenstein and Romania exempt the reserved area. 19 countries exempt the USO, while 4 exempt all postal services, cf. Section 7.2.

Table 7.1 Current VAT treatment of postal services

VAT treatment of postal services	No. of countries	Countries
VAT on all products	5	Finland, Sweden, Slovenia, Norway, Switzerland
VAT exemption on reserved area	4	Bulgaria, Liechtenstein, Romania
VAT exemption on USO (note that the USO scope differs between the countries)	19	Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Netherlands, Portugal, Slovakia, Spain
VAT exemption on all products	4	Luxembourg, Malta, Poland, UK*

*Note: * Until 31.1.2011. From 31 January 2011 VAT will apply to products Royal Mail is not obliged by licence to provide which are not price controlled (all individually negotiated services, parcelforce services, unaddressed mail, mailroom services)*

Source: Copenhagen Economics (2010) – Country fiches.

7.3. ECONOMIC PROBLEMS OF THE CURRENT VAT TREATMENT

The special VAT treatment of the postal sector concerns exemptions granted to universal service providers (USPs). In most cases, the USPs are also designated operators and in practice they are the national postal operators. Exemption from VAT brings two kinds of distortions to the postal sector:

Firstly, certain postal services provided by USPs may be not subject to VAT – while those of private operators are. This means that for end consumers USP prices will be lower than those of private operators which include VAT. This creates distortions in the market for outputs.

Secondly, VAT-exempted USPs are not able to recover input VAT, which they pass on to their customers which is technically known as “VAT cascading”. In other words, USP prices will always contain an amount of “hidden” VAT in their prices which will pass on the value chain. The end-consumer will therefore pay double VAT for a part of the value added. This creates distortions in the market for inputs.

Input distortion

Distortions in the market for inputs affect incentives for sourcing of inputs or procurement decisions for operators. VAT-eligible operators are entitled to deduct the incoming VAT on inputs, such as maintenance of delivery equipment. Therefore, such operators may decide to

¹⁷⁰ Cf. Full VAT taxation has been alleged to violate a harmonised application of the CVSD.

outsource or sub-contract the delivery of inputs in cases where external providers are more efficient in supplying them than the operators themselves. VAT-exempt operators cannot deduct the VAT on inputs; therefore they face relatively higher prices of outsourcing or sub-contracting. As a result, they have an incentive to self-supply the inputs – although they may not be as efficient as external providers.

Case 1: VAT exemption generates extra costs for NPOs to acquire inputs (cars, etc).

Any inputs provided internally by NPOs to its independent subsidiaries carry hidden VAT. This means that the end prices are higher as VAT cannot be deducted at intermediate points in the value chain. This may mean more outsourcing.

Box 7.2 Effects of VAT treatment on outsourcing levels in Denmark and Sweden

The VAT treatment has profound implications on decisions regarding the level of outsourcing of support functions*, such as book keeping, office support, cleaning services, facilities management, repair work, IT-support, preparation of food, security or wage management, by national postal operators. Where VAT on these inputs cannot be recovered, the NPO chooses to produce these services internally, although external providers may be intrinsically more efficient in supplying such functions. To illustrate this, we asked NPOs in Denmark (where input VAT cannot be recovered) and Sweden (where input VAT can be recovered) about their levels of outsourcing of support activities.

The current VAT treatment of Post Danmark does not allow the NPO to recover the VAT on inputs and consequently the NPO admits the level of outsourcing is lower than it could have been. The current VAT treatment of Post Danmark means that outsourcing only starts to be attractive in situations where it is able to bring in savings above 25 percent of existing costs. For this reason, the use of outsourcing is markedly limited compared to what would be the situation if our VAT scheme was the same as for other operators. Post Danmark practices varying degrees of outsourcing in areas such as - for instance - cleaning services, IT-support services, repair work and security services. However, the extent would be quite different, if VAT conditions were normalised.**

The opposite situation exists in Sweden. Due to its VAT treatment, Posten AB is entitled to deducting all incoming VAT. The result is that nearly all types of support activities are outsourced in the extent between 90 and 100 percent. The VAT treatment allows Posten AB to take advantage of even relatively small cost savings through outsourcing.

Outsourcing of core and support activities in your organisation

Support function	Approximately what share of the following activities do you outsource?	
	Posten AB***	Post Danmark**
Book keeping / accounting	90 %	
Receptionist services / office support	90 %	
Cleaning services	100 %	varying degrees - would be different, if VAT conditions were normalised
Facilities management / janitor services	85 %	
Security services	95 %	varying degrees - would be different, if VAT conditions were normalised
Human resource management	40 %	
IT-support services	95 %	varying degrees - would be different, if VAT conditions were normalised
Preparation of food	100 %	
Repair work (fleet, equipment)	100 %	varying degrees - would be different, if VAT conditions were normalised
Wage management	90 %	

Note: *We assume that core functions, such as mail collection, sorting, transportation and delivery are not outsourced by NPOs.

Source: ** Correspondence with Troels Thomsen, Post Danmark, 14.09.2010 *** Correspondence with Sture Walander, Posten AB, 17.09.2010.

We observe that the three NPOs with the lowest cost ratios either have no or very few products that are VAT exempt. This gives incentives to outsource activities and might therefore explain the low costs ratios in the Netherlands, Sweden and Finland. We also observe a high degree of outsourcing in Germany, mostly in transport, parcels and post-in-shops, cf. chapter 6.

Output distortion

Distortions in the market for outputs affect competition between postal service providers. The distortions arise because VAT-eligible users of postal services have a preference for

VAT-eligible operators. This is because users can deduct incoming VAT from VAT-eligible providers. Similarly, VAT-exempt users, such as the public sector, the financial sector or charities, have a preference for VAT-exempt operators. This is because the users cannot deduct VAT and therefore prefer prices which are free of the tax (even though in practice the prices contain the “hidden” VAT on inputs due to the cascading effect).

From the perspective of the operators, these two effects will partly offset each other. However, from the perspective of the customer, these effects will not offset each other, as only one of the effects will be relevant. The result from a customer perspective is thus that there is less competition.

Significance of the distortions on the output-side in the different VAT regimes differs. In practice, the current VAT regimes differ with respect to the degree of economic distortions they create depending on the amount of services to which the VAT exemption applies.

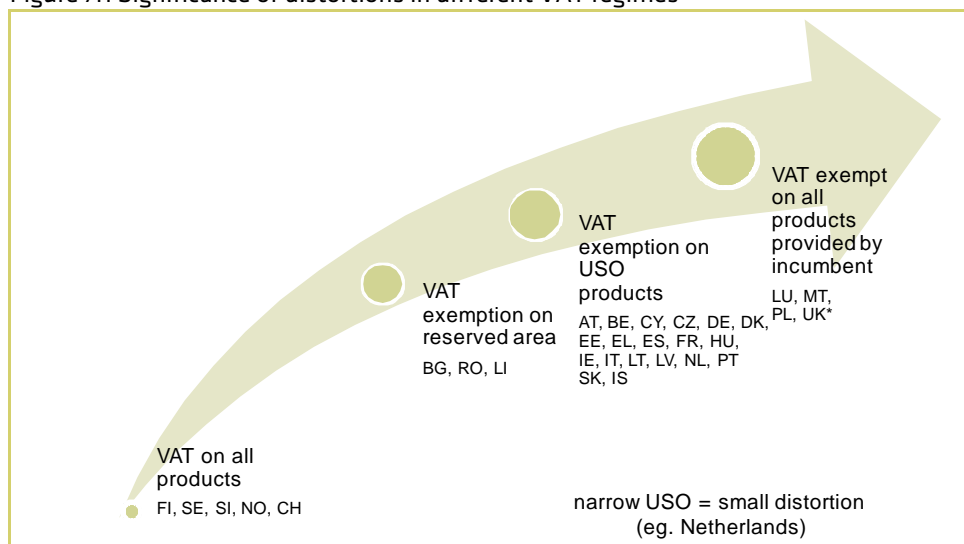
The regime with full VAT taxation of all economic activities is the least distortionary system; cf. e.g. Copenhagen Economics (2010). This is because VAT cascading does not take place and the entire burden of VAT falls effectively on the end consumer – rather than intermediaries – which is in line with VAT being a consumption tax. VAT-eligible firms do not have preferences for the services of either public or private operators. Currently, 4 countries apply VAT on all postal products, cf. Figure 7.1.

Regimes offering exemptions to certain services of national public operators introduce distortions. The more products subject to exemptions, the greater the output side distortions. Thus, regimes exempting only the reserved area are relatively less distortionary than regimes exempting the entire USO. With regard to the USO exemption, we note that distortions increase the broader the USO is defined on the national level – thus the actual distortions may be different within the group of countries exempting USO products from VAT.¹⁷¹ Currently, 3 countries grant exemptions to the reserved area while 19 countries extend them to the entire USO, cf. Figure 7.1.

Regimes offering exemption from VAT on all national postal operator activities are the most distortive. This is because exemptions extend to the broadest possible product range of the operators with the potential of interacting with the price offerings of a large number of alternative providers. There are four countries who grant exemptions to all products provided by the national postal operator, cf. Figure 7.1.

¹⁷¹ In Germany, the reserved area only comprises letters below 50g so distortions in the German regime are relatively small.

Figure 7.1 Significance of distortions in different VAT regimes



Note: In countries where USO products are exempt from the VAT, the level of distortion is directly proportional to the scope of the USO. f

* Until 31.1.2011. From 31 January 2011 VAT will be applied on unaddressed mail and parcels.

Source: FEDMA (2008) and Copenhagen Economics (2010) – Country fiches.

Case 2: VAT exemption distorts competition because it affects decisions on procurement of postal services.

NPOs and taxable operators may not be able to compete efficiently in all markets:

- If the consumer of postal services is VAT-taxable, the consumer will not be able to deduct the hidden VAT. Thus, the consumer will prefer the services of taxable postal operators whose VAT can be deducted in full, provided that the full price excluding VAT is lower than the full price of the NPO. The net of VAT price of taxable postal operators can be lower than the NPO price with non-deductible VAT (on costs).
- If the consumer is not VAT-taxable, the consumer will benefit from lower prices (e.g. the public sector, banks, insurance companies, charities). These consumers will prefer the NPO despite the hidden VAT (assuming the NPO price is lower than the price of the alternative provider with the VAT).

The taxable consumer will then pass on this hidden VAT in its own prices and the final consumer will end up paying “double VAT”.

7.4. RECENT VAT-RELATED CASES

The special VAT treatment of “public postal services” has been challenged by private operators during 2008-2010. The most important case was initiated by TNT UK who challenged the VAT-exempt status of Royal Mail. TNT UK argued that not all of Royal Mail’s activities enjoying VAT exemptions were to be regarded as “public postal services”. TNT argued

that in a liberalised market VAT should be charged on competitive services to avoid market distortion.

The case was eventually referred to the European Court of Justice. On April 23, 2009, the European Court of Justice issued a ruling in the TNT Post UK case ref. C-357/07.¹⁷² The ruling has two key consequences for VAT in the postal sector which are binding in all Member States:

- VAT exemption should only apply to postal service providers providing the public postal services.
- Services based on individually negotiated contracts are liable for VAT.

The first issue concerns the services to which the exemption from VAT should apply. The exemption should apply to public postal services. But the interpretation of this is unclear – since the exemption applies to those postal services which are provided under a different legal regime (universal service obligation), by an operator that is subject to this different legal regime (universal service provider). On one hand is the argument that says public postal services correspond to USO services. USO is provided by USPs (and eventually, also by market forces). USPs may continue to enjoy VAT exemption on the USO, which constitutes a part of their activities. This interpretation is followed by many countries.

The second issue points to the fact that individually negotiated contracts are not a part of the USO because they are competitive services. They should be subject to VAT. Individually negotiated contracts are formulated for commercial reasons, by offering conditions which are not available to the general public. National postal operators offering individual contracts do so to compete with private operators, or to stimulate demand by price discriminating and offering lower prices to the most price sensitive customers. According to the ruling, national postal operators should be subject to the same VAT rules as the other operators in the postal market in such cases.

The ruling gives rise to certain challenges:

- Interpretation of the scope of “individually negotiated contracts” and “public postal services” in practice.
- The Member States who apply full VAT taxation in their postal sectors (Finland, Slovenia and Sweden) must introduce the exemption for USO services.

German approach concerning the TNT UK decision

The ruling in the TNT - Post UK Ltd. case requires postal operators to charge VAT on “individually negotiated contracts”, while the VAT exemption can be retained on “public postal

¹⁷²<http://curia.europa.eu/jurisp/cgi-bin/form.pl?lang=en&newform=newform&jurcdj=jurcdj&docj=docj&typeord=ALL&numaff=c-357%2F07&ddatefs=&mdatefs=&ydatefs=&ddatefe=&mdatefe=&ydatefe=&nomusuel=&domaine=FISC&mots=&resmax=100&Submit=Submit>

services”. To comply with the ruling, Member States must translate it to the products and services offered by operators in their postal markets.

Prior to the ruling, the German incumbent enjoyed exemptions on most of its activities.

On March 26 2010, the Bundesrat passed a law to amend the scope of VAT exemption for Deutsche Post, following the TNT UK ruling. The law provided a practical interpretation of the scope of products and services for which the ruling should apply. According to it, the VAT exemption should apply to single mail items. The argument is that single mail items are services provided for the benefit of the citizens. On the other hand, the remaining postal services are mostly demanded by businesses, where it is important that business customers are able to deduct the incoming VAT in order to prevent passing it on as hidden VAT in prices.

For the incumbent, Deutsche Post, the consequence was that VAT would need to be charged to commercial customers from July 1, 2010.¹⁷³ For the customers of Deutsche Post this means that they can deduct VAT on the services purchased from Deutsche Post.

7.5. RECENT INITIATIVES OF THE EUROPEAN COMMISSION

The DG TAXUD of the European Commission is responsible for VAT and has monitored how the tax is implemented in the postal sector for a number of years. DG TAXUD has taken actions in this area in the past. A proposal for full VAT taxation was included in the draft directive on the VAT in the postal sector intended to simplify the treatment. However, the proposal faces opposition from some Member States due to the risk of increasing consumer prices.

From 2008 to 2010 the European Commission has been actively assessing VAT rules applied in the postal sector with a view to eliminating distortions to competition. The most recent initiatives in this area include:

- Launching infringement cases against three Member States (Germany UK, and Sweden) prior to the TNT UK ruling;
- Reviving the discussion on a Directive on VAT in the postal sector.

Infringement cases

The first area of Commission activities with respect to VAT in the postal sector involves monitoring national VAT legislation and intervening in cases where the law does not implement the VAT Directive correctly. In the period 2008-2010, the Commission has started infringement proceedings against Germany, the UK and Sweden after receiving complaints about the application of VAT for postal services in those countries.

¹⁷³Moody's (2010).

The UK, Germany and Sweden operated a VAT regime for postal services which the Commission found to be in violation of the VAT Directive¹⁷⁴. In Germany and the UK, nearly all postal services offered by the national postal operators were exempt from VAT. In Sweden, all postal services, including those provided by the national postal operator and private operators, were subject to VAT. Since Sweden granted no exemptions, VAT was also charged on USO provided by the national postal operator, Posten AB.

The Commission requested that the countries comply with the provisions in the Directive. In April 2006, the Commission sent letters of formal notice to these Member States.¹⁷⁵ However, their replies were not satisfactory and in 2007, the Commission opened the second stage of infringement proceedings against them.¹⁷⁶ The proceedings were still ongoing as of mid-2010, and no information is publicly available as to the state of play of the Commission's analysis.¹⁷⁷

In the case of the UK and Germany, the Commission argued that the VAT exemption hinders competition between the former monopolist and private entrants. The domestic VAT legislations in Germany and the UK had exempted all or most of the postal services provided by the former postal monopolies from VAT. This was justified due to the universal service obligation assigned to the national postal operators.

Private competitors did not have universal service obligations and hence their services were subject to standard VAT rates. As a result, the public and private operators were subject to different VAT treatment on the services they provided.

In Sweden's case, the Commission argued that while it acknowledged the objective behind full VAT taxation was as an approach chosen to avoid competition distortions, Sweden has nevertheless failed to apply an exemption which remains in EU legislation. The exemption is stipulated by Article 132 of the VAT Directive and must be applied in a harmonised manner across the EU. The exemption, however, should be applied in such a way that it minimizes distortions of competition between former monopolies and market entrants.

Reviving the discussion on a Directive on VAT in the postal sector

The second area of Commission activity in the area of postal VAT regards legislative initiatives. The European Commission finds the current VAT rules in the postal sector obsolete and is working on a Directive on VAT on services provided in the postal sector. The direc-

¹⁷⁴ The Commission was aware that these three Member States were not the only ones where similar problems existed and regards them as test cases which show in stark relief the devastating effects non-harmonised application of VAT rules has for the internal market.

¹⁷⁵ IP/06/484

¹⁷⁶ Reference: IP/07/1164 Date: 24/07/2007), cf. also

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1164&type=HTML&aged=0&language=en&guiLanguage=en>

¹⁷⁷ Only when that examination is concluded and a final decision on the issue is taken will the Commission be in a position as to make public its findings. Case reference numbers: Sweden: 2006/2046, UK: 2006/2047 and Germany: 2006/2048.

tive is intended to align the VAT treatment of the sector with the current objectives of market opening. Furthermore, the Directive is supposed to provide a common interpretation of existing VAT rules.

Discussions on improving the VAT system in the postal began in 2000¹⁷⁸. In 2003, the European Commission published a proposal to the Council for a directive to remove the exemptions for national postal operators.¹⁷⁹ In July 2004, an amended draft directive was issued¹⁸⁰.

The proposal contains two main features:

- Removing the current VAT exemption for postal services and postage stamps supplied by traditional postal operators;
- Granting the option of applying a reduced VAT rate to addressed letters and packets no heavier than 2 kg (items above this mass would be subject to standard rate).

As a consequence of the first feature, customers would start paying VAT on all services provided by the national postal operator, including stamps, but they would no longer pay hidden VAT, because national operators would be able to deduct it from their inputs. The right to deduct incoming VAT by national postal operator should mitigate price increases for private consumers due to the introduction of VAT. Business consumers would be able to deduct the VAT when buying from national operators.

The motivation for the second feature was to further minimise any impact that the removal of the exemption could have on prices for the services most frequently used by private consumers. However, the reduced rate would also be applicable to direct mail, books, catalogues, newspapers provided that they have been addressed to a named person.

The proposal lay dormant from 2004 until December 2, 2009 when discussions on the legislative proposal resumed under the Swedish Presidency in view of the upcoming liberalisation in the postal markets¹⁸¹, cf. Box 7.3.

Box 7.3 Ecofin Council resumes the discussion on VAT in the postal sector

"The [Ecofin] Council stresses the importance of taking all necessary measures to solve the political problems originating from the VAT treatment of postal services before the third Postal Directive will enter into force and the liberalisation of the postal market is a fact. Taking the previous into account and taking account of existing tax arrangements in Member States, the Council invites the Spanish and Belgian Presidencies to explore and examine all options in order to make steps forward in this respect and to report the progress made at the Ecofin council in December 2010 at latest."

Source: <http://www.europolitics.info/economy-monetary-affairs/vat-on-postal-services-art256583-30.html>

¹⁷⁸ *A strategy to improve the operation of the VAT system within the context of the internal market* COM(2000) 348 final, June 2000, p 9, [Quoted in House of Commons (2010)].

¹⁷⁹ COM (2003) 234, cf. also IP/03/633 and MEMO/03/98.

¹⁸⁰ COM/2004/468/FINAL.

¹⁸¹ Rectifying the VAT treatment of the postal sector was also an item on the agenda of the Swedish Presidency of the European Union in 2009.

However, a recent note of the UK House of Commons argues that “*the extent to which the proposal will be discussed over the course of 2010 is unclear*”. This is because “*any change would have to be agreed unanimously, many Member States, including the UK, strongly object to VAT on public postal services and, importantly, the two Presidencies in waiting, Spain and Belgium, have not indicated that this is a priority for them*”.¹⁸²

¹⁸² House of Commons (2010).

Chapter 8 TECHNOLOGICAL DEVELOPMENT

8.1. MAIN FINDINGS AND RECOMMENDATIONS

Technological development affects many aspects of postal services; from senders' and recipients' demand for postal services to postal operators' abilities to improve efficiency, offer new and value-added services and implement environmentally sustainable policies.

In this chapter, we provide a general overview of the latest technological developments in the postal sector. We also study three topics more in-depth:

Topic 1: How do postal operators adapt to the new technological environment, with increased scope for automated mail processing and new services?

We find that technological development has led to increased automation and the development of new and value-added services in nearly all countries in our analysis. However, these developments are very diverse across Europe. We find that the majority of postal operators in 2010 provide, or are planning to provide, hybrid mail or virtual delivery solutions. The majority of postal operators also offer e-commerce services, ranging from e-shops where customers can buy stamps or postcards online, to more advanced services such as e-banking and the provision of digital certificates. Despite the trend towards the increasingly important e-based services and the new employment opportunities they provide, we find the overall employment effect from technological development in the period to be negative. This is mainly due to the employment reductions following the process of restructuring made possible by increased automation and the fall in letter volumes due to e-substitution.

Topic 2: Does technological development call for an amended or new regulatory framework?

Based on our observations at the time of writing, we do not currently see a need to regulate hybrid mail and virtual delivery networks. This is due to the fact that existing regulation and market mechanisms already seem to take care of potential problems related to these services, such as the issue of letter content confidentiality. However, since new technologies develop continuously, we find it important that the NRAs follow market developments closely and continue to assess the need for regulation, including the need for access regulation and regulation related to data security and confidentiality.

Topic 3: What are the most important measures in the area of environmental sustainability implemented by national postal operators across Europe?

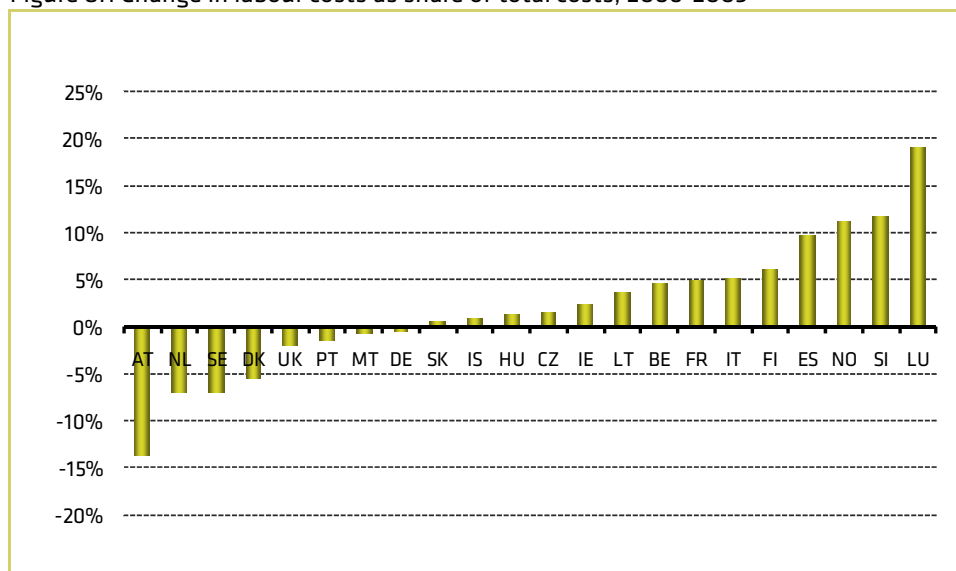
We find that nearly all NPOs have an environmental policy in place. Among the most common are measures to reduce greenhouse emissions, transport management and waste reduction schemes.

8.2. SECTOR OVERVIEW

The postal sector has traditionally been, and still is, a very labour intensive sector. Normally, more than 50 percent of the postal operators' total costs relate to labour in terms of wages, pensions and social benefit schemes (see chapter 6 on the labour market).

As new technologies decrease the need for manual work, we would also expect to see a decrease in postal operators' labour costs as share of total costs. However, in the majority of countries, we observe the opposite – an increase in the share of labour costs at the NPOs, cf. Figure 8.1. This might be explained by cost reductions in other areas or by the fact that the major changes in labour intensity occurred prior to 2006.

Figure 8.1 Change in labour costs as share of total costs, 2006-2009



Note: BG, CH, CY, EE, EL, LI, LV, PL, RO: No data available for both years. LT: 2006-2008

Source: Country fiche appendix (indicator x.8.2.) complemented with data from annual reports

Due to technological developments and new communication patterns, postal services have changed considerably over the past ten years. The focus of postal operators has been to raise efficiency of processes, identify where the bulk of fixed costs are found, and to make these costs flexible. The result of this thinking has resulted in increased automation replacing manual sorting, and a focus on increasing delivery efficiency. However, in the past two to three years, the focus of many postal operators has changed even further. We observe a movement towards new business models with an increased focus on logistics and e-based solutions with recipients as the key customers.¹⁸³

In the following two sections, we examine postal operators' adaption to technological development within two areas: process development and product development.

¹⁸³ Interview with Walter Trezek, Document Exchange Network, 8 July 2010

8.3. PROCESS DEVELOPMENT

Technological development affects production processes in many ways. Three of these are the restructuring of transport and logistics networks, the implementation of IT-based supply chain management and increased automation of sorting.

Restructuring of transport and logistics networks

Access to new technologies (together with an increased focus on the global environment) has led to the restructuring of transport and logistics networks. Through increased mechanisation and IT-based track-and-trace systems, postal operators are trying to optimise the mail flow from sender to recipient.

We observe that most NPOs have already reorganised or are about to reorganise their logistics network, often by means of a reduction and centralisation of the number of nodes (e.g. fewer distribution centres, sorting centres and post offices). Those postal operators who previously reduced the number of post offices are now restructuring their sorting and distribution networks. This development began several years ago and often resulted in a reduction in the number of regional sorting centres and a centralisation of activities. Finland, Norway and the UK are three countries where this pattern can be observed. We also noted operators implementing restructuring measures in final distribution by means of IT-based route optimisation, cf. Box 8.1.

Box 8.1 IT-based route optimisation with GeoRoute

GeoRoute is a routing software widely used by postal administrations (e.g. in Belgium, Canada, Germany, Ireland, Luxembourg, Norway, and United Kingdom). Some features of the software are its abilities to:

- Build routes using postal codes;
- Account for each side of the street specifically, as they may be assigned to different routes;
- Allocate mail sorting time to each route based on their respective mail volume;
- Include required stops at extra depot boxes;
- Zigzag narrow and/or lightly populated streets where allowed and if more efficient;
- Account for several possible transport modes and even a combination of modes to travel between the depot and route start/end points.

The software minimizes the number of routes required to service a given area, typically by approximately 5 percent for mail delivery and 15 percent for other operations.

Source: GIRO (2007) <http://www.cs.cmu.edu/afs/cs/project/pscico-guyb/realworld/www/slidesF07/GIRO-MKT-GEOR-PST-GENE-20070411.pdf>

Another way to increase network efficiency is through network specialisation, i.e. by implementing separate logistics networks for letters and parcels. This might be advantageous due to the different characteristics of the deliverables. For instance, letters and parcels require different types of sorting equipment and in contrast to letters, if parcels are not collected at the post office or some other pick-up location, they often require someone at home at the time of delivery. The resulting optimization potential arising from these features is reflected in our observations, where we find that separate networks are more common in sorting and delivery compared with collection and transport, cf. Table 8.1.

Table 8.1 Separate networks for letters and parcels at NPOs

Network	Type	No. of countries	Countries
Collection	Separate	11	DE, DK, FR, IE, LU, LV, MT, NL, IT, SE, UK
	Joint	11	BE, CH, CZ, ES, FI, HU, IE, IS, PT, SI, SK
Sorting	Separate	14	DE, DK, FR, IE, LU, LV, MT, NL, IT, CH, BE, PT, SE, UK
	Joint	8	CZ, ES, FI, HU, IE, IS, SI, SK
Transport	Separate	12	DE, DK, FR, IE, LU, IT, IE, MT, NL, CH, SE, UK
	Joint	10	BE, CZ, ES, FI, HU, IS, LV, PT, SI, SK
Delivery	Separate	14	DE, DK, FR, IE, LU, LV, IS, IT, MT, NL, CZ, CH, SE, UK
	Joint	8	BE, ES, FI, HU, IE, PT, SI, SK
No information		9	AT, BG, CY, EE, EL, LT, PL, RO, LI

Note: IT: One network for letters and parcels up to 2 kg, another one for heavier parcels. NO: Partly separate networks, depending on regional/local conditions IE: Different networks exist for inter regional transport with separate national hubs located in the Dublin Mails Centre for Letters and the town of Portlaoise for Parcels.

Source: Country fiche appendix (indicator x.9.7)

Another example of improvements in the transport and logistics network is the introduction of new vehicle and trailer tracking technology, cf. Box 8.2.

Box 8.2 Vehicle and trailer tracking to optimize postal logistics

Vehicle and trailer tracking modules are used to plan and optimize transport costs by managing precise arrivals and departures of vehicles at specific points of exchange between parties in the logistics chain.

The software used provides almost real-time information about when the trailer has left a hub, when it is scheduled to arrive at a sorting centre and the actual time of arrival. It provides early warnings of delays in transport and, in case of actual delays, the system will inform the user whether the delay was caused by the vehicle or the production process.

The vehicle and trailer tracking module gives postal operators the tool to cut transport expenses and it provides a full overview of the transport system. It also provides for the automatic calculation of actual utilization per vehicle and can thus be used to optimize postal operations' transport and logistics flows.

Source: Lyngsoe systems (2010), http://www.lyngsoesystems.com/postal/Vehicle_and_trailer_tracking.asp

IT-based supply chain management

In addition to network restructuring, technological development also provides opportunities to improve the entire production process by means of IT-based supply chain management systems. One example of this is the Italian NPO, Poste Italiane, and its implementation of the Service Control Room, cf. Box 8.3.

Box 8.3 Optimising logistics and improving performance with IT at Poste Italiane

In 2001, Poste Italiane set the goal of rethinking the entire logistics network and IT Infrastructure with the objectives of reducing operational costs, improving service quality and sustaining market developments.

This was achieved by creating a technological supply chain, which could oversee the status of the network, systems, applications and services and control the processes for a total of over 25 different services, from online messaging and e-payment of pensions, to the operations of every post office.

One of the most important aims of the project was to use the infrastructure and services management to be able to identify immediately any problems that might affect the CRM (customer relationship management) system. Three years later, the supply chain management project was launched, and after a further year, the new Service Control Room was running at full speed.

The system provides nationwide, 24H/day monitoring and control of the whole logistic process (collection,

sorting, delivery) as well as real-time control of operations and transportation. Thanks to the RFID-technology, the control room can monitor the entire logistics process and suggest timely interventions to prevent possible delays or logistic failures.

The IT-based platform has enabled Poste Italiane to manage all service activities efficiently, both for the infrastructure and CRM system. Compared to the prior situation, characterised by a large number of complaints being filed and long waiting times due to poor performance of the infrastructure, the quality has improved significantly. Now, the management immediately recognises any deficiencies - which, how many, where and when, and can in this way act in time to prevent failures in the system.

Thanks to the quality and quantity of the data recorded by the monitoring, Poste Italiane also receives detailed information regarding the ways in which services are used by every company in the group, as well as the volume and value of usage. The accounting of the infrastructure costs is useful in asset management terms due to cost curtailment policies and the safeguarding of investments.

Source: Poste Italiane (2009), <http://postal-management.epfl.ch/webdav/site/postalleadership/shared/IT-PosteItaliane-Sardoni-Lausanna-27Apr09.pdf>, Hewlett-Packard (2006), http://h41087.www4.hp.com/solutions/large/news/0811_itsm/pdf/poste-italienne.pdf

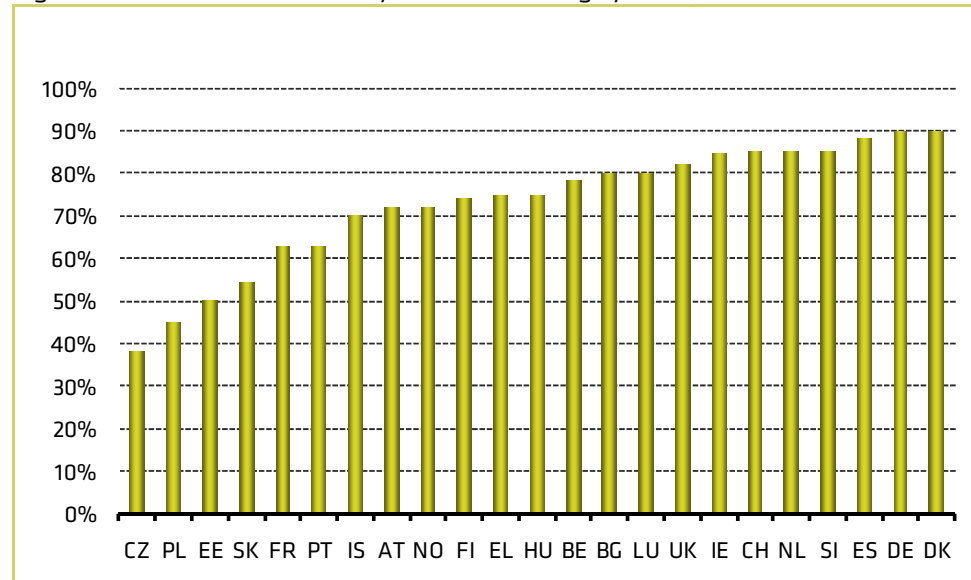
The optimisation of delivery networks and routing systems provides major scope for cost reductions at postal operators, as restructuring and optimisation measures often reduce the need for manual work – the core cost in postal operations. However, the largest scope for a reduction in the work force is probably provided by increased automation of sorting activities.

Scope for increased automation

Over the past 10-15 years, the degree of automation of postal service processes has increased significantly throughout Europe. In a study performed by NERA (2004), the percentage of mail handled mechanically at the universal service postal operators was documented for 17 countries¹⁸⁴, finding automation rates ranging from 25 percent in the Czech Republic to 89 percent in Germany. Today, we observe automation rates above 70 percent at most European NPOs. However, there is still a handful of operators with a degree of automation below 50 percent, and two small operators (in Latvia and Malta) where all mail is handled manually, cf. Figure 8.2.

¹⁸⁴ AT, BE, CZ, DK, EE, FI, FR, DE, HU, IE, LU, NL, PL, PT, SI, ES, UK

Figure 8.2 Letter items handled by automatic sorting by NPOs, 2009

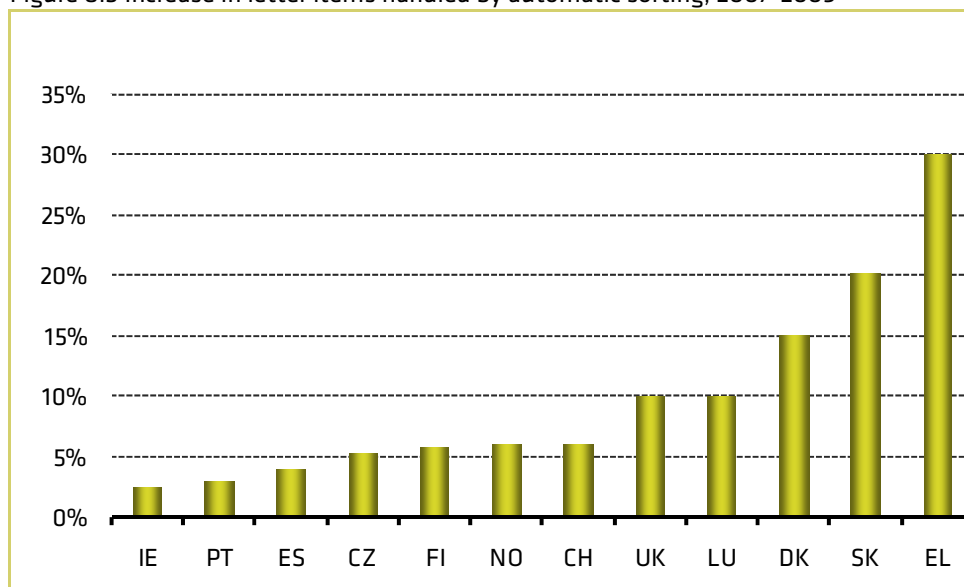


Note: AT, EE, FR, PL: latest available data from 2003, LV, MT: no automatic sorting of letters

Source: Country fiche appendix (indicator x.9.3)

The average share of letter items handled by automated processes in 2009 was 68 percent. This is an increase of approximately ten percentage points, compared to the situation in 2007. However, the development differs between countries. Whereas no measures to increase automation have been undertaken in Latvia, Malta and Iceland over the last two years, the share of items handled automatically has increased by more than 20 percentage points in Slovakia and Greece, bringing the level of automation in these countries closer to the others, cf. Figure 8.3.

Figure 8.3 Increase in letter items handled by automatic sorting, 2007-2009



Note: AT, BE, BG, CY, DE, EE, FR, HU, IT, LT, NL, PL, RO, SE, SI, LI: no data available, LV, MT, IS: 0 percent increase

Source: NERA (2004), Country fiche appendix (indicator x.9.3)

The factors influencing the evolution of automation have been examined more closely by PriceWaterhouse (1999). This analysis highlighted three factors: business goals, industrial relations and the availability of financial resources.

Business goals are cost reductions, productivity improvements or increased quality and reliability of services resulting from increased automation, for example. The possibility of increasing quality whilst reducing costs is attractive for postal operators. However, trade unions express concerns about lay-offs and changes in employment structure and conditions which may result. One example of this is the implementation of the Georoute system for organising delivery routes in Belgium which triggered strikes among postal workers in 2003, 2004 and 2006.¹⁸⁵

Another NPO in a similar situation is Royal Mail. According to an independent review of the UK postal sector in 2008, in some locations, the trade union has instructed its members not to use new technology (such as machines for sorting larger letters and hand-held devices to track mail) until there is both a national and local agreement about their use.¹⁸⁶ This is the factor referred to as 'industrial relations'. Consequently, success is reliant upon gaining the understanding and acceptance of the employees when implementing new technologies.

This can be done in several ways. We observe that postal operators often try to avoid large lay-offs by introducing alternative employment schemes (such as part-time work), pension

¹⁸⁵ Brandt and Schulten (2007)

¹⁸⁶ Hooper et. al (2008)

plans, or by transferring employees to other tasks within the company (in existing or new business areas). One example of this is provided by the Finnish NPO, Itella, which started a large project of implementing new sorting technology at four sorting centres in 2009. The reform was estimated to reduce employment by 360 man-years, corresponding to slightly more than 400 full-time equivalents. However, according to Itella, employment effects do not have to be severe as long as the operator sustains a continuous dialogue with its employees, cf. Box 8.4.

Box 8.4 Automated sorting and staff reductions at Itella

By the end of 2010, new sorting technology will be in use at four of Itella's locations in Finland. According to the development plan, the new sorting equipment will, in addition to existing first-class letters, handle all domestic addressed direct marketing and second-class letters as well as part of the magazines.

The other sorting centres will continue their operations, focusing mainly on the collection of shipments, receipt and sorting of mainly first-class letters. Operations will also continue at the terminals.

The reform will take place over a period of 18 months. The estimated increase in efficiency will correspond to 360 man years by the end of 2010. During the long transition period, it will become clearer how much of the efficiency increase can be achieved through natural turnover of labour, pension plans or transfers to other tasks within Itella. Experience from earlier reforms shows that many have found new jobs.

Itella has been prepared for the new situation with the increase of e-communications and the European postal market being opened for competition at the beginning of 2011 for some years already by maintaining a continuous dialogue with its employees.

Source: *Itella Corporation (2009)*,

http://www.itella.fi/english/current/2009/20091005_newpostalsortingtechnology.html

We also observe employee-driven automation initiatives. One example of this is provided by DHL and the development of robots to facilitate the unloading of pallets, cf. Box 8.5.

Box 8.5 Increased automation in the handling of parcels at DHL

The aim of the DHL Innovation Initiative is to continuously demonstrate how the potential of increased automation can be put to use. One recent innovation implemented is the robot cell light which enables a fully automated unloading of pallets. The idea stems from an employee who recognised problems in the manual unloading of pallets.

Until recently, the only option for unloading pallets involved removing parcels by hand, meaning that the individual packages had to be separated from each other and placed on a conveyor belt. As these turning and lifting movements were often experienced as heavy and inconvenient by the workers, the idea of the Robot Cell Light was born.



Instead of removing the parcels by hand from the pallet, the Robot Cell Light grabs parcels from the pallet and puts them on a conveyor belt. In this way, parcels can be commissioned according to individual orders.

One advantage of this solution is the easy integration into any operation without any prior construction projects, e.g. in the mail-order businesses, where goods on pallets arrive daily and must be individually commissioned for customer orders. Consequently this new invention is not only useful in the DHL's own warehouses, but it also can be offered to other customers on the market, all thanks to the innovative thinking of the employees.

Source: DHL (2010), <http://dsi.dhl-innovation.com/en/aboutus/projects/innovationprojects/automation>

Effects on employment

Process development is one of the main reasons for the lay-offs and reorganisations observed in the postal sector over the last years. However, with cost reduction as the key priority for many postal operators and a large share of labour costs, lay-offs are often unavoidable when new technologies are introduced. The introduction of new sorting equipment or route optimisation schemes is thus often attractive for postal operators that want to be competitive.

However, technological development might also have a positive effect on employment by creating employment opportunities through the provision of new and value-added services. We observe that many postal operators over the last few years have expanded into new services based on new technologies such as virtual networks and mobile technology. One example is the launch of a new internet letter service at the German NPO Deutsche Post in July 2010 where a large call-centre, entirely dedicated to the new service, is estimated to create up to 700 jobs in Bavaria.¹⁸⁷ Expansion of these kinds of services tends to absorb some of the employees who are no longer required in other processes.

¹⁸⁷ Post Insight, 19 May 2010, <http://www.postinsight.com/showDetail.cfm?id=13076>

However, new employment opportunities are not equivalent to job losses. Therefore, as long as postal operators' main focus remains on traditional letter mail, we will continue to observe an overall negative employment effect stemming from technological developments.

The only possibility of combining process restructuring with a steady or even increasing employment level is most likely provided by the innovation of value-added postal services and engagement in other services which are more or less related to existing traditional postal services. This is what we refer to as 'product development'.

8.4. PRODUCT DEVELOPMENT

New technology affects the development of new products and services in two ways. First, it constitutes a pull-factor, providing the opportunity to create new and value added services by means of advanced technology. Second, it is also a push-factor, forcing operators to create new services to meet changes in consumer demand, stemming from increased e-substitution.

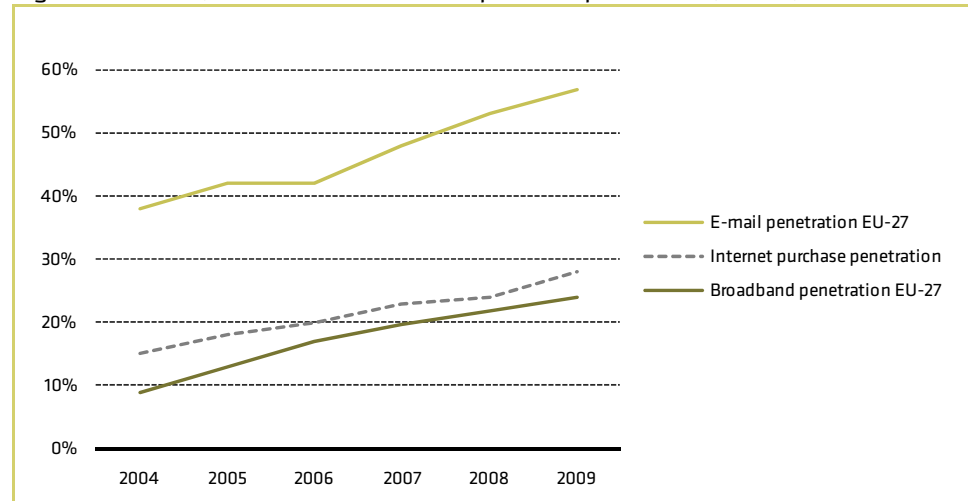
E-substitution

According to a report published by Eurostat, 35 percent of EU-27 internet users had substituted significant amounts or most of all their traditional postal mail by internet or e-mail messages in 2006. In addition, 25 percent of EU-27 enterprises with computers had substituted most of their traditional postal mail by electronic means of communication.¹⁸⁸ This development has continued, with a steady increase in broadband penetration and the use of internet as an important communication tool.

On the one hand, e-mail, e-banking and e-invoicing are substituting traditional letter mail, leading to decreased letter volumes. On the other, e-commerce and the increase in internet shopping increases the amount of parcels sent, both at a domestic and an international level. Over the last five years, we observe a steady increase in broadband and internet purchase penetration, as well as in the communication via e-mail, cf. Figure 8.4.

¹⁸⁸ Fickinger and Lumio (2008)

Figure 8.4 E-mail, broadband and internet purchase penetration, EU-27, 2004-2009

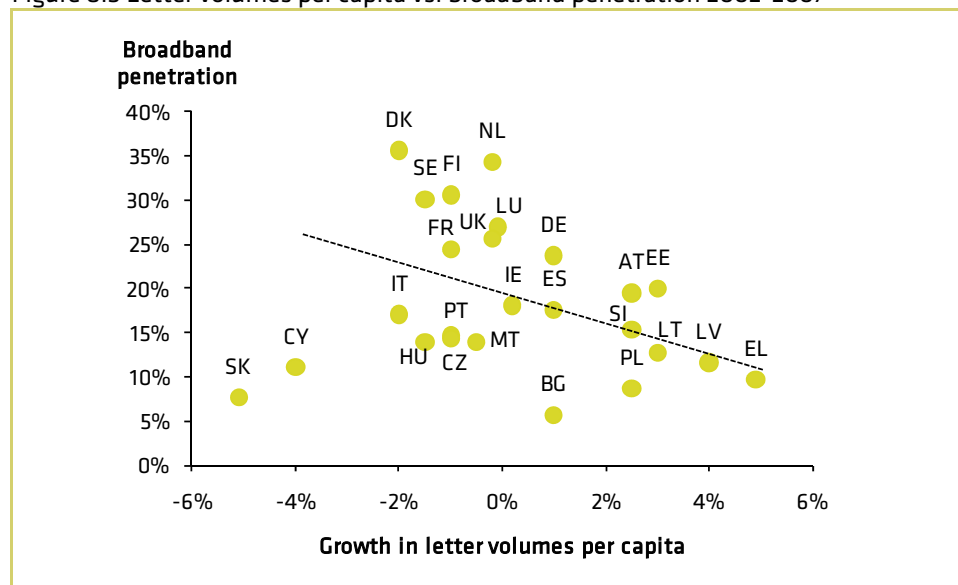


Note: E-mail and internet purchases refer to the percentage of EU-27 citizen that in the last three months have used the internet to send/receive e-mails or to order goods or services for private use. Broadband subscriptions refer to the percentage of EU-27 citizen that have a broadband subscription. A higher share of internet purchases than broadband subscriptions can be explained by the fact that there might be several individuals sharing one broadband subscription in a household. Moreover, internet purchases can also be made at public computers or for instance at work, and do thus not require a broadband subscription.

Source: Eurostat statistics, OECD (2009)

When we look at the relationship between broadband penetration and the development in letter post items per capita, we observe a slight negative correlation. In general, countries where letter volumes have decreased are those with a high level of broadband penetration. However, there are two outliers in our sample: Cyprus and Slovakia. In these countries, letter volumes have decreased significantly, while broadband penetration still is low, cf. Figure 8.5. We have not been able to obtain any plausible explanations for this observation.

Figure 8.5 Letter volumes per capita vs. broadband penetration 2002-2007



Note: The trend line is drawn on a sample excluding the two outliers, SK and CY

Source: Growth in letter volumes: ITA/WIK (2009), Broadband penetration: OECD (2009)

The trends in mail substitution are also recognised by the European NPOs. Most NPOs consider themselves affected by e-substitution, cf. Table 8.2. There are only a few NPOs stating that e-substitution has had no impact or only a minor effect on letter volumes. However, this is often due to low levels of internet penetration and these NPOs mostly expect increased e-substitution in the future.

Table 8.2 NPO observed trends in mail substitution

	No. of countries	Countries
Noticed e-substitution	14	BE, CH, CZ, DK, DE, FI, FR, IE, IS, LU, LV, MT, NL, NO, SE, SK
Expects e-substitution in future	7	EL, HU, IT, PT, SI, UK
Noticed substitution due to financial crisis	6	BE, DK, FR, IS, LU, NO
No information provided	9	AT, BG, CY, EE, LT, PL, RO, ES, LI

Source: Country fiche appendix (indicator x.6.4)

E-based services: Hybrid mail, virtual delivery and e-commerce services¹⁸⁹

Access to new technologies has introduced the opportunity for postal operators to engage in the provision of value-added services such as hybrid mail, virtual delivery networks and e-

¹⁸⁹ Hybrid mail refers to items that are dispatched in electronic form by the sender and are subsequently printed, packed, sorted and delivered by the postal operator to the recipient. Virtual networks of mail refer to the digitalisation (scanning) by the postal operator of a paper-based item dispatched by the sender and the electronic delivery of the item to the recipient. E-commerce services refer to two dimensions of activities performed by postal operators. The first dimension is the role played by postal operators in the final leg of an e-commerce transaction (shipping of items ordered on-line). This can be in a B2B or B2C context. The second dimension is the supply of e-commerce services other than postal services by postal operators – such as electronic banking or e-shops.

commerce services. This development began ten years ago and has reached a point where most NPOs presently supply at least one e-based service, hybrid mail being the most common, cf. Table 8.3.

Table 8.3 NPOs provision of hybrid mail and virtual delivery services

Status at NPO	No. of countries	Countries
Provision of hybrid mail	22	BE, BG, CH, CZ, DE, DK, EL, ES, FI, FR, IE, IS, IT, LV, MT, NL, NO, PT, SE, SI, SK, UK
Provision of virtual networks	13	BE, CH, CZ, DE, DK, ES, FI, FR, IT, MT, NL, NO, PT
Plans to develop (new) solutions	10	CZ, ES, EL, HU, IE, IS, LU, PT, SI, SK
Observed trend of increasing turnover from hybrid mail and/or virtual networks	6	CH, DK, EL, PL, PT, SI
No information provided	6	AT, CY, EE, LT, RO, LI

Source: Country fiche appendix (indicator x.9.2, indicator x.9.5)

The reason for hybrid mail being the most common e-based service among European NPOs is probably due to the quite moderate investment requirements for postal operators to start up a hybrid mail service when compared to a virtual network, for example. Whereas hybrid mail only requires printing, packaging, sorting and delivery of items (limiting additional investments for an established postal operator), virtual networks require the physical handling of mail items which have to be opened and scanned and thereafter delivered electronically to the recipient. These activities might require a larger investment for the postal operator in terms of manual work or new mechanical processes as well as in terms of access to a database of e-mail addresses or an electronic mailbox service.

According to Earth Class Mail, a company delivering virtual network solutions to many postal operators across the world (including Swiss Post), in 2010, customers in over 175 countries access and manage their physical mail items online through virtual delivery services.¹⁹⁰ While the main benefits for private customers often are increased mobility and convenience in mail handling, businesses are often attracted by cost savings and productivity gains. Earth Class Mail states that digitizing paper mail at its entry point and injecting it directly into an organization's electronic workflow can save 75 percent of document lifecycle costs.¹⁹¹

In April 2010, a virtual delivery network solution was introduced during a trial period at the Finnish NPO, Itella. The service means that letter items are opened, scanned and sent by e-mail to the final recipient, cf. Box 8.6. This approach has led to a debate concerning confidentiality of letter content and the importance of guaranteeing privacy. This is one reason why some NRAs (in Belgium, Cyprus, the Czech Republic, Hungary, Lithuania and Romania) are considering introducing new regulations in this area.

¹⁹⁰ Earth Class Mail (2009), <https://www.earthclassmail.com/pressreleases/Feb11-2009>

¹⁹¹ Allbusiness.com (2009), <http://www.allbusiness.com/technology/software-services-applications-information/12897763-1.html>

Box 8.6 Virtual networks at Itella

In April 2010, an entirely new postal service experiment, planned to last to the end of the year, begun at the Finnish NPO, Itella. The new service is an extension of the already existing hybrid mail service (NetPosti), which will consequently now also include first and second class letters written on paper. In this new virtual network service, paper letters are opened by Itella's personnel, scanned and emailed to the recipient.

Simultaneously, the number of traditional mail deliveries will be reduced to only twice a week for customers participating in the experiment. However, mail will be made available for pick up from a box at their local shop.

Source: *Helsingin Sanomat* (2010),

<http://www.hs.fi/english/article/Itella+to+begin+opening+letters+and+delivering+them+via+email/1135255790584>

Developments in the use of hybrid mail and virtual delivery networks provide business potential not only for NPOs but also for new operators. However, it does not necessarily mean that it is strictly necessary for postal operators to provide these services in order to remain competitive in the future. For instance, we observe that several postal operators have extended their services to other e-based services and areas with a weaker connection to core postal activities.

In addition to hybrid mail and virtual delivery, the majority of NPOs also provide, and/or have plans for developing various kinds of e-commerce services with more or less strong connections to core postal services, cf. Table 8.4.

Table 8.4 NPOs' supply of e-commerce services

Status at NPO	No. of countries	Countries
Provision of own e-commerce services	15	BE, CH, DE, DK, FI, HU, IE, IS, IT, NL, NO, PT, SI, SK, UK
No provision of own e-commerce services	7	CZ, EL, LU, MT, PL, ES, SE
Observed trend of increasing turnover from e-commerce	6	DE, HU, NO, PT, SI, SK
Plans to develop (new) solutions	8	CH, CZ, DE, FI, IE, NO, PT, SI
No information provided	9	AT, BG, CY, EE, FR, LV, LT, RO, LI

Source: *Country fiche appendix (indicator x.9.5)*

The most widespread type of e-commerce service among postal operators is the e-shop, where customers can buy stamps and postcards. However, many NPOs also engage in other e-commerce services such as electronic document handling, e-payments, e-invoicing and the provision of digital certificates.

Another new service, promoted by the increase in parcel volumes, is parcel arrival notifications per e-mail or mobile phone and pick-up locations for parcels. Pick-up locations are stations where customers can collect (and in some cases also send) parcels outside the opening-hours of the post office. This increases the flexibility of parcel services and can also be considered an environmental friendly initiative. In Germany, for instance, a study has shown that parcel stations have reduced car traffic in the city of Cologne by 35,000 kilometres per

year.¹⁹² We note that ten NPOs provide parcel pick-up locations to their customers in 2010 and an additional four are planning to introduce pick-up locations in the future, cf. Table 8.5.

Table 8.5 NPOs' supply of parcel pick-up locations

Status at NPO	No. of countries	Countries
Parcel pick-up locations in place	10	AT, BE, CH, DE, DK, FI, FR, LU, MT, SE
No parcel pick-up locations	13	CZ*, ES, EL, HU*, IE*, IS, IT, LV, NL, PL, PT*, SI, UK
No information	8	BG, CY, EE, LI, LT, NO, RO, SK

Note: *Planning to develop parcel pick-up locations

Source: Country fiche appendix (indicator x.9.1)

As letter volumes and margins continue to shrink, postal operators across Europe have also engaged in other services to extend their businesses and gain revenues from new business areas. For instance, in recent years, several NPOs have entered the mobile phone market as mobile virtual network operators (MVNOs). One of the main advantages for a postal operator to engage in mobile activities is the opportunity to extend the access to its postal (and often also financial) services via mobile phones. Two examples are CTT Correios in Portugal and Poste Italiane in Italy, which both launched mobile services in 2007, cf. Box 8.7. As of the time of writing, there are at least two more European NPOs who are considering following the same path: AnPost in Ireland, who will launch mobile services as an MVNO in 2010, and French La Poste, that in March 2010 confirmed its intentions of becoming an MVNO by starting its search for a mobile network operator partner.¹⁹³

Box 8.7 Poste Mobile – Poste Italiane's success as MVNO

In early 2007, Poste Italiane announced its intention to begin selling mobile phone services as a mobile virtual network operator (MVNO). Less than a year later, in November 2007, the new service "PosteMobile" was launched. As a MVNO, Poste Italiane could extend access to its existing postal and financial products via mobile phones, while leveraging wireless technologies to offer innovative, revenue-generating services.

PosteMobile allows customers to conduct a variety of financial and communications activities easily, securely and to a low cost. Customers can check their PosteMobile accounts, make money transfers and pay bills through the SIM menu. They can refill their accounts, and monitor the movement of funds in both the PosteMobile prepaid card and Poste Italiane accounts.

PosteMobile and Poste Italiane have achieved dramatic business results. In the first month of operation as a startup company, PosteMobile attracted 100,000 subscribers and captured 7,000 activation orders per day at the peak of this growth. Within two months of the launch date, PosteMobile became the leading Italian MVNO in terms of customer base.

Source: Accenture (2008), <http://origin.www.accenture.com/NR/rdonlyres/314D1F94-0CC7-4DD6-8334-25BF6B88E4E1/0/0805PosteItalianeMVNOcasestudyv3.pdf>;

Effects on competition - New technologies as business opportunities

An environment with continuous technological development provides increased scope for new operators to gain market shares by engaging in new services where the former monopolist does not have as large an advantage, as in traditional mail delivery services.

¹⁹² Deutsche Post (2010), http://www.dp-dhl.com/en/responsibility-online_report_2010/environment/green_solutions/eco-friendly_productsandservices.html

¹⁹³ Post and Parcel (2010), <http://postandparcel.info/32219/it/la-poste-confirms-mvno-possibilities/>

We observe several indications that the e-based market segments are growing with increasing revenue potential. Slightly over one third of the NPOs that provide hybrid mail or virtual networks also observe an increasing share of revenue from these activities. For e-commerce, almost 50 percent of providers observe an increasing revenue trend. The increasing trend in e-commerce revenues is supported by the increase in ordering of goods or services over the internet and the increase in broadband penetration.

With computers and the internet being a natural part of most Europeans' everyday life, the demand for technology-based services increases. Simultaneously, personal mobility increases, leading to an increased willingness and demand among senders to send messages by means other than physical letters, even to recipients who do not have access to computers or mobile phones (i.e. hybrid mail). The expectation that one can be simultaneously mobile and accessible, be it via the mobile phone, e-mail, Skype or MSN is far higher today than only five years ago, increasing the demand for services delivered directly to the personal computer or the mobile phone (e.g. virtual network solutions).

From business customers' perspectives, the availability of hybrid mail, electronic invoices and bank statements provide two types of opportunities. On the one hand, it provides an opportunity to reduce costs in the handling of physical mail items. On the other, it provides an opportunity to position one's business as a conscientious organisation, taking environmental responsibility by minimizing paper wastage and greenhouse gas emissions.

For electronic invoicing to be a viable alternative, a sufficient share of customers must have access to e-mail and be willing to shift to the new standard. One country where this shift has already taken place to a large extent is Finland, where a significant section of large businesses are digitised already. However, the willingness to send electronic letters is significant, also among SMEs, municipalities and organisations, cf. Box 8.8.

Box 8.8 Electronic letters appeal to Finnish SMEs

According to a study commissioned by Itella Information, two-thirds of Finnish SMEs, municipalities and organisations would like to send letters through electronic channels. 87 per cent of the survey respondents stated that they send invoices, but at present, only one in four is ready for electronic invoicing.

A total of 70 per cent of the respondents were convinced that paper communication will be reduced and electronic communication will gain ground. On the contrary, about one-fourth did not expect a significant drop in paper communication. A shift to electronic transactions is being encouraged particularly by the prospect of cost savings, improved customer service and the ease of use.

A previous study by Itella showed that 11 per cent of the Finns use online services daily, e.g. to place orders, make appointments, fill in forms or pay invoices. If those who use such services only a few times a week are also counted, the result sees 35 per cent of Finns already using online services in one way or another.

In relation to the total letter volume, electronic invoices are least used in the healthcare sector, small financial sector companies and organisations.

According to Itella, Finnish SMEs, municipalities and organisations could be encouraged more strongly to digitalise their services. The easier it is to implement electronic invoicing, for instance, the lower the threshold to do it. Itella Information is collaborating with more than 100 Finnish software companies in order to enable all organisations to adopt digital services easily and smoothly.

The earlier study commissioned by Itella also revealed that Finns have a positive impression of digital services. Finns would prefer to receive receipts, bank statements, bills and payslips, for example, in electronic format. They would also like to receive property-related messages electronically, e.g. fund reports and other investment materials, warranty certificates and insurance documents. A third major purpose of use would be receiving and archiving prescriptions, notices of dentist appointments, laboratory results and other health-related messages, as well as messages associated with taxes, building permits, day-care decisions, the confirmation of a student's admission to an institution and other decisions made by the authorities.

Source: Itella Corporation (2008), http://www.itella.fi/english/current/2008/20080509_eletter_study.html

The importance of hybrid mail and virtual delivery solutions in the future of postal services can be seen not only in the service portfolio of the NPOs and the demand patterns of mailers. Sector experts are also of the opinion that e-based solutions are continuously gaining larger importance. According to Document Exchange Network, an Austrian consultancy active in the areas of input and output management, electronic presentment, hybrid delivery, and different types of digital and electronic postage, the two most crucial parameters in the provision of future hybrid mail services are access and trust. 'Access' refers to customers' requests to be able to communicate at whatever time, wherever they are, whereas 'trust' refers to the guarantee that a message is delivered to the correct recipient, on time, and with unchanged content. Without meeting these two requirements, any postal operator will find it difficult to survive.¹⁹⁴ According to Walter Trezek, the founder of Document Exchange Network, recipients in the future will decide when and where they want to receive their mail, and in what format (paper-based, e-mail, mobile text message etc.). They will also have the power to decide what kind of mail they want to receive and what they do not want to receive, putting increased requirements on postal operators to provide a secure and reliable delivery of the right kind of items.¹⁹⁵

¹⁹⁴ Document Exchange Network (2010), http://www.docex.net/uploads/12/47/End_of_Post_30092009.pdf

¹⁹⁵ Interview with Walter Trezek, Document Exchange Network, 8th July 2010

Effects on competition - New technologies as entry barriers

Despite of the fact that new technologies change the demand pattern of mailers and provide opportunities for alternative operators in new market segments, there are still concerns that new technologies can act as a barrier to entry for new postal operators.

This might be the case if former monopolists develop their own models and interfaces of electronic postal services, to which alternative operators have difficulties obtaining access. It could, for instance, be a database with e-mail addresses or an electronic mailbox system where all citizens receive communication from public authorities.

Problems of duplicating such infrastructure probably stem more from the behaviour of customers than from new operators' technical construction capabilities. For instance, recipients who receive the largest part of their electronic mail from the NPO might not bother to inform all operators about their change of e-mail address. Consequently, the address database of the NPO will be better updated than those of its smaller competitors. Incentives to choose an electronic mailbox with the NPO in the first place can be significant, such as where the NPO is delivering electronic mail from the public sector (e.g. notifications from the tax authority or from the local government) or if the NPO already has a trustworthy reputation compared to new and unknown operators. Anecdotal evidence from Denmark suggests that these problems may hinder competitors from building a strong competing infrastructure.

We find indications that the largest postal operators in Europe are reshaping their business models and developing their new technology-based services on exclusive platforms that cannot be accessed by competitors. If new operators are not granted access to fair conditions, there might be a risk that they are excluded from developing successful services based on the new technology. One possible consequence of this could be that postal services based on new technologies in the future are only provided by a few large networks (which have been able to develop successful solutions) across Europe. In exchange for a roaming fee, other operators (which have not been successful in developing the new technologies) could then use the infrastructure developed by the large network owners to deliver mail in their networks.¹⁹⁶

As technological development creates new dimensions to postal services in terms of new services and new types of networks, the question about regulatory implications arises. Will it be necessary to amend the current postal regulation to protect consumers and/or certain operators, and if this is the case, what role should the NRAs play?

8.5. REGULATORY EFFECTS OF TECHNOLOGICAL DEVELOPMENT

A situation where the technology-based infrastructure of a postal operator is an essential facility which other operators cannot duplicate might call for new regulation to grant alternative operators a fair chance to compete and to prevent a concentration of future services to

¹⁹⁶ Interview with Walter Trezek, Document Exchange Network, 8th July 2010

only a few large providers with access to the essential infrastructure. This could, for instance, be the case of an established e-mail address database, built up by the NPO under several years, containing an updated list of addresses as well as other customer related information.

In addition to accessing essential infrastructure, another topic for regulatory discussions is confidentiality and data security in the context of virtual delivery, where physical letters are opened and scanned and thereafter sent electronically to the recipient. The concern is that personal integrity and information will not be sufficiently guaranteed if the opening and scanning of letters are handled manually.

In the questionnaire sent out to the NRAs, we asked them whether they are aware of any hybrid mail or virtual delivery solutions in their respective jurisdiction and whether they would consider regulating these types of services if they had the opportunity to do so. Among the 31 NRAs only a handful stated that this is the case, cf. Table 8.6.

Table 8.6 NRA considerations to regulate hybrid mail or virtual network services

State at NRA	No. of countries	Countries
Considerations to regulate hybrid mail or virtual network solutions	7	BE, CY, CZ, DE, HU, LT, RO
No considerations on regulating hybrid mail or virtual network solutions	22	AT, BG, CH, DK, EE, EL, FI, FR, IE, IS, IT, LV, LI, LU, MT, NL, NO, PL, PT, SE, SI, SK
No information available	2	ES, UK

Source: Copenhagen Economics (2010), Country fiche appendix (indicator x.2.3)

Several NRAs also stated that there is already sufficient national regulation in place, such as the current postal law or regulation in the area of electronic communications that takes care of possible issues of confidentiality or access.

In Finland, the virtual delivery service offered by the NPO has been investigated by the NRA as well as by the data protection ombudsman and the technical research centre of Finland, cf. Box 8.9. The Finnish NRA does not, at the time of writing, consider regulating virtual delivery services. However, in the context of further technological development, it might be necessary to consider new regulation in Finland. This was stressed by the Finnish Minister of communications during a postal conference in Valencia¹⁹⁷

Box 8.9 Dealing with confidentiality in Itella's virtual network experiment

To guarantee the data security of Finnish citizens, the virtual network experiment at Itella, Finland, has been verified as lawful with the Finnish Communications Regulatory Authority (FICORA) and the Data Protection Ombudsman. The data security issue involved in digitalising people's letters has moreover been looked into by the VTT Technical Research Centre of Finland.

¹⁹⁷ During the European Commission Second High Level Conference on Postal Services in Valencia 2010, the Finnish Minister of Communications, Ms Suvi Lindén, held a presentation with the title "Postal Universal Service Obligation in presence of broadband". The minister stressed that the Postal Directive only leaves a little space for innovative digital services in fulfilling the obligations of the universal service. The minister also raised the question as to how to redefine the USO concept for the digital world and how to adjust the EU's postal regulatory framework to the digital change. This indicates that, in the light of further technological development, new regulation might be necessary.

To guarantee recipients total confidentiality, Itella has a unit that specialises in digitising paper documents with its own premises, where the scanning takes place. Thus, the scanning of mail items does not take place at the ordinary sorting centres and the ordinary mail delivery staff does not take part in this part of the service. The people who perform the scanning are bound to secrecy and are strictly forbidden to read people's letters. Sending money in letters is unlawful and any possible photographs will not be studied closely.

Source: *Helsingin Sanomat* (2010),

<http://www.hs.fi/english/article/Itella+to+begin+opening+letters+and+delivering+them+via+email/1135255790584>

In Switzerland, the data security and confidentiality issue is dealt with directly in the virtual delivery service provided by Swiss Post, as customers subscribing to virtual delivery have to approve each opening of a letter after seeing a scanned image of the envelope, cf. Box 8.10.

Box 8.10 Scanning of unopened envelopes to guarantee privacy at Swiss Post

Since 1 January 2008, Swiss Post is offering its customers the service Swiss Post Box, an electronic equivalent to the regular physical mail box.

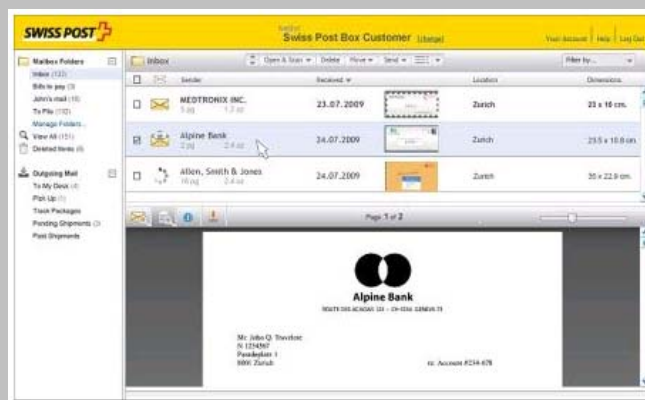
In the virtual delivery service, the envelope of the mail item is first scanned, without being opened. Thereafter, an image of that envelope is sent by e-mail to the recipient, who can choose from five alternatives:

1. Swiss Post opens and scans the contents confidentially and under strict security measures so that the customer can read the contents online.
2. Swiss Post sends the unopened letter(s) to an address of choice of the customer.
3. Swiss Post recycles the letter.
4. Swiss Post shreds and disposes the letter.
5. Swiss Post archives the contents as for as long as the customer wants, or as long as the law requires.

Security and confidentiality

Swiss Post Box employees who come in contact with the mail items are subject to high security and personal character checks. The mail items are handled in a highly secure scanning centre in Switzerland - the same facility where Swiss Post handles banking materials - which should guarantee the customers a certain degree of discretion. Immediately after the mail items have been scanned, they are placed in a blank envelope and filed away. The process for handling the mail items is proofed and certified by accredited agents of Swiss Data Protection services.

Swiss Post Box



Source: *Swiss Post* (2010), <http://swisspostbox.com/>

Against this background, we find it important that postal sector regulators pay attention to the possible problems arising from the implementation of new technologies. It would be preferable if this could be done in cooperation with other national authorities within the

field of electronic communications or data protection to guarantee e-privacy and protection of personal integrity. It might not always be necessary to implement new regulation, but NRAs should make sure that consumers are protected and that new operators are treated on fair and equal terms.

Based on our observations, we do not see a current need to regulate either hybrid mail or virtual delivery networks. This is due to the fact that existing regulation and market mechanisms already seem to take care of potential problems related to these services, for instance, the issue of letter content confidentiality. However, since new technologies develop continuously, we find it important that the NRAs follow the market developments closely and continue to assess the need for regulation, including the need for access regulation and regulation related to data security and confidentiality.

8.6. DEVELOPMENT OF ENVIRONMENTAL AND SUSTAINABILITY POLICIES

Postal operators have an impact on the environment, mainly in terms of greenhouse gas emissions and paper wastage. Most CO₂ emissions result from the use of road transport, aviation and building energy usage. To reduce the carbon footprint and to promote a sustainable environment, postal operators across Europe have undertaken various measures. In this section we present an overview of some of the initiatives undertaken by the NPOs in their work towards a better global and local environment.

Implementation of environmental policies at postal operators

We observe that almost all NPOs have some form of policy in place to increase environmental sustainability and reduce their carbon footprint. The most common implemented at more than 50 percent of the NPOs are measures to reduce energy consumption, to reduce CO₂ emissions, and to improve the performance of the transport fleet by eco-driving schemes and the use of bio fuels, cf. Table 8.7.

Table 8.7 Environmental initiatives at NPOs.

Policy	No. of countries	Countries
Reduction of CO ₂ emissions	18	BE, CH, DE, DK, FI, EL, HU, IE, IT, LU, PT, ES, FR, NO, SE, NL, CZ, UK
Ability for consumers to offset CO ₂ emissions/buy carbon neutral alternatives	4	CH, DE, FI, UK
Participation in the PostEurop Greenhouse Gas Reduction Programme (GHG)	16	AT, DE, BE, FI, FR, HU, MT, DK, SE, NO, UK, CH, NL, EL, IT, PT
Pilot member/observer in GHG	7	PL, RO, BG, CY, EE, LU, IS
Participation in EMMS*	16	IE, ES, PT, BE, DE, FR, EL, FI, HU, NO, LU, DK, SE, UK, CH, NL
Transport management/Eco-driving incentives	20	BE, CH, DE, DK, FI, EL, HU, IT, LU, MT, NO, SI, ES, PT, FR, UK, SE, NL, IS, CZ
Use of renewable energy sources	7	BE, CH, HU, IT, LU, NL, CZ
Energy reduction schemes	17	BE, CH, FI, EL, HU, IE, MT, NO, PT, ES, FR, LU, SE, DK, NL, CZ, UK
Waste reduction/sorting	13	BE, DE, HU, IE, PT, SI, SK, LU, MT, NO, SE, CZ, UK
Reduce water consumption	6	BE, DE, EL, LU, SE, UK
ISO-14.001 certification	7	BE, HU, PT, SK, ES, SE, NL
No information provided	9	BG, CY, EE, LV, LT, PL, RO, ES, LI

Note: *EMMS is the Environmental Measuring and Monitoring System initiated by the IPC

Source: Country fiche appendix (Indicator x.9.8.), IPC (2009)

The majority of NPOs are also members of one or several networks established to share knowledge and improve environmental performance among postal operators. One of these is the Greenhouse Gas Reduction Programme, initiated by PostEurop, cf. Box 8.11.

Box 8.11 PostEurop Greenhouse Gas Reduction Programme (GHG)

The PostEurop Greenhouse Gas Reduction programme was launched by the PostEurop Environment Working Group in June 2007 in recognition of the importance of issues surrounding climate change, environment and communities.

The purpose of the program is to educate and enable knowledge sharing among postal operators, promote a healthier living and working environment, encourage innovation and further R&D on environmental initiatives, and have a common methodology to track the European postal sector carbon footprint,

As part of the programme, a reduction of ten percent of CO₂ emissions in 2007-2012 has been agreed upon between the participants. At the time of writing this report, they are well ahead of pace to reduce this while remaining competitive in economic and service terms.

The four key areas covered by the programme are: transport, buildings and machinery, eco-efficiency products, and procurement and use of renewable energy and low carbon fuels.

Source: PostEurop (2010), <http://www.sustainablepost.eu/54.html>

The target to reduce CO₂ emissions by ten percent 2007-2012 is already met by some NPOs. One of them is Belgian bpost, which has set an even more ambitious target – to reduce CO₂ emissions by 35 percent in the same period, cf. Box 8.12.

Box 8.12 Environmental sustainability at bpost

bpost has launched an ambitious corporate program to reach a CO₂ reduction of 35 percent by 2012 (baseline 2007). Apart from switching to 100 percent green electricity since August 2008, other initiatives include the implementation of recommendations from energy audits of the 100 most energy-intensive buildings, organisation of eco-driving courses for more than 3,000 persons of the mail department, the launch of an "excellent fleet" program and the launch of a Wake-On-LAN* project which will allow desktop computers to be turned off at night and during weekends.

A "pilot" energy audit project has also been initiated in the sorting centers. A detailed review of Gent X sorting center identified a number of actions that can easily be replicated across four other (similar) sorting centers. Examples of actions identified include adjustment of the building management system configuration (e.g. taking into account day, night, weekend and holiday), opening of ventilation shafts in the summer to allow free-cooling, the switching off of some sorting equipment during non-operating hours and the creation of awareness with employees by asking them to close gates and switch off lights in non-occupied rooms.

This pilot achieved a saving of more than ten percent in electricity consumption in 2008. An overall ten percent target for the five sorting centers should result in a total saving of 3,437,000 kWh by end 2009.

Note: * Local Area Network

Source: IPC (2009)

One area where most postal operators have set up environmental goals is transport. We note that road transport clearly remains the most important means of transport throughout Europe, especially regarding domestic postal services. Rail and air transport are only used in large countries such as Finland, France, Germany, Italy, Norway, Portugal, Spain and Sweden, where a share of domestic mail is transported by air to meet overnight delivery requirements.

There are only a few countries where rail transport is used in postal services (Norway, Sweden, and Switzerland). In Norway and Sweden, the NPOs are striving to increase the share of rail transport, mainly with an environmental focus in mind. In 2009, approximately 50 percent of mail was transported by rail at Norway Post, cf. Box 8.13.

Box 8.13 Environment and quality in focus at Norway Post

The goal of Norway Post is to reduce CO₂ emissions by 30 percent by 2012 (baseline 2008). A main strategy in achieving this is by restructuring the logistics network and shifting from truck to rail transport where possible. In 2009, 80 percent of the routes where rail transport was possible and which previously were served by trucks were served by rail instead. This implies that almost 50 percent of mail at Norway Post was transported by rail. This trend is set to continue.

In addition, the major road transport route between Oslo and Bergen became fully rail-based. As a result, a total of 1,250 trucks were replaced by rail transport. Other transport routes are also close to achieving a 100 percent rail-based service, but challenges remain in terms of meeting customers' quality and time requirements. Nonetheless, Norway Post is actively exploring new and innovative solutions to this challenge.

Norway Post is also partnering with customers to expand the use of rail transport systems internationally. In May 2008, Bring Frigoscandia implemented a rail freight system to replace trailer trucks on the Oslo-Taulov (Denmark) line. A similar model has also been put in place on the Taulov-Verona (Italy) line. Furthermore, it has worked with IKEA to establish an efficient and reliable rail transport system between the IKEA hub in Sweden and Norway. Delivery quality is closely monitored on this route, which regularly achieves a rating of 98 percent (based on measuring arrival on schedule within one minute). This demonstrates that it is possible to combine environmentally friendly rail transport with high standards of quality.

Source: IPC (2009), Norway Post (2010)

<http://www.postennorge.no/aarsrapport/2009/Omgivelser/Milj%C3%B8rapport>

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APPENDIX A: WILLINGNESS TO PAY

STATED PREFERENCE TECHNIQUES

The objectives of the willingness to pay case study was to measure the importance of a set of variables: Closeness of post office, number of delivery days and bulk mail included in the USO. We want to measure the importance of these variables relative to each other but also their value to both residential and business customers.

The reason for choosing stated preference techniques for the case study is that we want to measure a price for a product that does not exist on the market: We cannot observe how consumers react to a postal business that brings out mail only three days a week. Therefore we need to ask the respondents. We do not wish to ask consumers directly if they prefer three, five or six days of delivery because they would generally prefer six days a week. Therefore we need to establish the relation between price and delivery. We do this by presenting a set of questions, games, where the respondent states his or her preference – stated preference games (SP games).

The main advantage of using stated preference techniques instead of revealed preference is that we can study hypothetical scenarios. On the other hand, respondents are not constrained by their own financial situation – they do not have to give out any real money only say theoretically how much they would be willing to pay. However, asking about willingness to pay to keep a service gives more truthful answers compared to asking for willingness to accept compensation for a decline in service (Mitchell, 1989).¹⁹⁸ A further weakness of revealed preference is that it can be difficult to obtain enough variation (Kroes, 1988).¹⁹⁹

Example of games for residential customers

For residential customers we examined the following aspects:

Table A.1: Variables for residential customer games

Variable	Alternatives
Delivery frequency	3, 5 or 6 days per week
Post office availability	Post office closest to your residence "Remains open" or "Will be closed"
Price per stamp (standard letter)	€0.44 €0.55 €0.72 €0.90

Source: *Copenhagen Economics*

To obtain good estimates, we need to find the price range where most respondents have their WTP. If the respondent's WTP is higher than the highest price change suggested it will look as if he has an extreme preference for the attributes and no preference for money. We have no prior knowledge of what the WTP for the various elements included in the SP games should be. Therefore our approach was to first make a pilot, and then adjust the price differences in the games based on the pilot results. Thus, the choice of prices is explorative.

¹⁹⁸ Mitchell, R. C. and Carson, R.T. (1989), *Using surveys to value public goods: The contingent valuation method*, Washington DC: Resources for the Future.

¹⁹⁹ Kroes, E. P. and Sheldon, R.J. (1988), "Stated Preference Methods: An Introduction." *Journal of Transport Economics and Policy*, Vol 22, No. 1.

Each respondent indicated their preference in eight different games. To retrieve as much information as possibly there were two different sets of games, each set presented to half of the respondents respectively.

Example of one of the games as presented to residential customers:

Game 1	Service level A	Service level B
Delivery frequency	5 days a week	3 days a week
Post office closest to your residence	Will be closed	Remains open
Price of stamp for a standard letter	€ 0.72	€ 0.55

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
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In the example game the respondents are asked to choose between a situation (A) with delivery 5 days per week, with the nearest post office closed and a stamp costs at € 0.72. Or they can choose situation (B) with delivery 3 days per week, with the nearest post office remaining open, and a stamp cost of € 0.55. Respondents can answer that they “Definitely” prefer A (or B) or “Maybe” prefer A (or B) or they can answer “Neither nor” if they cannot choose or do not know. For a full list of the games used see chapter 5 of this Appendix.

Example of games for business customers

For business customers, we examined the following aspects:

Table A.2: Variables for business customer games

Variable	Alternatives
Delivery frequency	3, 5 or 6 days per week
Post office availability	“In large communities only”, “As now”
Bulk mail included in USO	Yes, No
Price of postal services	2.5% reduction, “As now”, 5% increase, 7% increase Later supplemented by 25% reduction, 20% reduction, 10% increase, 20% increase

Source: *Copenhagen Economics*

The WTP for business may be different when compared to recipients. Since the survey is performed in several different countries with different price structures all prices are expressed as changes in percent. Again, to find the right price range we had to see what the answers revealed. After running the first round of the business survey, answers showed that the price intervals were too small to provide conclusions on willingness to pay. The price intervals were therefore increased in the second round of the survey.

Example of one of the games as presented to the business customer:

Game 1	Service level A	Service level B
Delivery frequency	3 days a week	5 days a week

Post office	As now	In large communities only
Bulk mail	Not in USO	Not in USO
Price of postal services	2.5% reduction	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

In the example respondents had to choose if they preferred situation A or situation B. In this particular game the bulk mail variable is the same in both situations because we did not vary all variables in the same game. For a list of all the games see chapter 6 of this Appendix.

RESIDENTIAL CUSTOMERS' PERSPECTIVE ON USO

We were able to successfully draw conclusions on willingness to pay for five days delivery compared to three and for maintaining the nearest post office. Residential users are much more willing to pay for available post offices than they are for more delivery days and non-internet users are willing to pay more than internet users.

Table A.3: Willingness to pay (WTP) per household

	WTP per letter	Comment
5 delivery days per week instead of 3 delivery days	€0.17	Significant
6 delivery days per week instead of 5 delivery days	€-0.04	Not Significant
Maintaining nearest post office (non-internet users)	€0.86	Significant
Maintaining nearest post office (internet users)	€0.53	Significant

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

In Table 5.12 we see that willingness to pay to maintain the nearest post office is € 0.53 for internet users and € 0.86 for non-internet users (a statistically significant difference). This means that internet users would accept an increase of stamp prices for a standard letter of € 0.53 to have their nearest post office remain open (as opposed to closed).

We tested whether the internet and non-internet users had different WTP for delivery frequency and found that they did not. The WTP for five delivery days instead of three is € 0.17 for all residential customers. In chapter 4 of this Appendix a full methodological explanation is given on how the WTP is calculated. For full STATA-output see chapter 7 of this Appendix.

Methodological and scope limitations

The estimation of WTP for six delivery days instead of five was not significant. Either the willingness to pay is zero or the smallest price difference in the sample was not small enough to capture the WTP for this variable.

The study only covered Austria and is not necessarily representative for the entire EU or for other countries.

Respondents

Austria was chosen for the survey because it is a country with remote locations where USO may be important for many residents and good mix of urban and rural areas. To minimize bias due to a particular survey mode we used two different modes: online surveys and face-to-face (f-t-f) interviews. The f-t-f interviewees were screened and selected on the basis on not having internet access at their residence. Both groups were selected to be a natural representation of age, sex and location of residence.

We received 499 useful complete answers from the online survey and 100 answers from the face-to-face interviews of non-internet users

Table A.4: Characteristics of the residential respondents

	Internet users	Non-internet users
Male/ female	52% male, 48% female	49% male, 51% female
Age 18-24	12%	7%
Age 25-34	21%	15%
Age 35-44	24%	17%
Age 45-54	23%	23%
Age 55-65	21%	16%
Age 65+	0%	22%
Employed	60%	32%
Self-employed	13%	3%
Student	4%	6%
Unemployed	6%	37%
Retired	18%	22%

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

Our survey seems to provide a reasonable picture of the mail flows.

Table A.5: Characteristics of residential mail flow

Element of USO	Residential customers with internet	Residential customers without internet
Mail received		
- Minimum	0	1
- Maximum	70	25
- Average	7.2	7.1
- Median	5	6
Mail sent		
- Minimum	0	0
- Maximum	150	25
- Average	3.2	3.7
- Median	1	3
Distance to nearest post office (average)	2,3 km	2,2 km
Distance to second nearest post office (average)	7,1 km	8,9 km

Note: The person who received 70 items was self employed and mainly received business mail. Second largest amount received was 36 items.

Three individuals sent more than 100 items, one of which indicated these were invitations.

Source: Copenhagen Economics based on SSI online survey and Gallup interviews

BUSINESS CUSTOMERS' PERSPECTIVE ON USO

For business customers the estimations clearly showed a diminishing return for more delivery days when increasing above five delivery days per week. For availability of post office the result was statistically insignificant and a small confidence interval around zero indicates that the real WTP could be zero.

Table A.6: Willingness to pay for USO services – business mailers

USO service	WTP, price increase	Comment
5 delivery days per week instead of 3 delivery days	29%	Significant
6 delivery days per week instead of 5 delivery days	11%	Significant
Post offices available as now instead of only in large communities (businesses where parcels and merchandise makes up more than 20% of total items sent)	3%	Not significant (p-value 0.27)
Post offices available as now instead of only in large communities	-3%	Not significant (p-value 0.13). Availability of post offices is not an important variable.
Bulk mail as USO product (mailers that currently send bulk mail with NPO)	-1%	Not significant (p-value 0.70)
Bulk mail as USO product (mailers that do not send bulk mail or do not send their bulk mail with NPO)	-6%	Variable not relevant (mailers that do use NPO bulk mail services are not willing to pay to have bulk mail as a USO product)

Source: Copenhagen Economics based on SSI online survey for businesses (mailers)

Methodological and scope limitations

From this study we can draw the conclusion that delivery frequency and price clearly are dominating factors compared to post office and bulk mail included in the USO. We know that post office has low importance for business. The survey could be improved to provide more precise information on WTP for post offices by making separate games without differ-

ences in delivery days between alternative A and B and with lower price changes. However, there is a trade-off between presenting many games to receive much information and the willingness of respondents to answer the games if there are too many.

Regarding bulk mail included in USO, we got a negative coefficient for non-bulk mail users. These users have no relation to the product so the result is not relevant for policy makers. Estimating a more precise WTP for bulk would require a separate game with lower price changes and no delivery days. However, as explained in the main report, we argue that the questions regarding bulk mail should have been treated in a fundamentally different way. Our recommendation is to define scenarios for how the business customers will be affected if bulk mail is not included in the USO – and then use these scenarios to infer the willingness to pay for having bulk included in the USO.

On respondents

Our business survey is not limited to one country. We have sent out invitations to participate in the survey as broadly as possible in order to receive as many answers as possible and in order to cover both small and large businesses.

We have distributed our survey in different ways: Cooperation with mailers' associations (FEDMA), cooperation with USPs, and open invitation on our homepage. Businesses from 25 EU countries have participated.

142 complete and useful answers have been submitted.

Table A.7: Nationality of business respondents

Country	No. of respondents	Percent of total respondents
Austria	2	1.4%
Belgium	2	1.4%
Czech Republic	7	4.9%
Denmark	3	2.1%
Estonia	19	13.4%
Finland	5	3.5%
France	1	0.7%
Germany	5	3.5%
Greece	5	3.5%
Hungary	18	12.7%
Iceland	1	0.7%
Ireland	2	1.4%
Italy	1	0.7%
Latvia	2	1.4%
Lithuania	2	1.4%
Netherlands	5	3.5%
Norway	4	2.8%
Portugal	1	0.7%
Romania	4	2.8%
Slovakia	4	2.8%
Slovenia	41	28.9%
Spain	2	1.4%
Sweden	1	0.7%
Switzerland	1	0.7%
United Kingdom	4	2.8%

Source: *Copenhagen Economics*

We tried to minimise biases by including screening questions to make sure the survey is answered by the right respondents.

However, we have received too few answers to be able to correct for country specific differences such as income levels per capita and initial level of USO (high quality or low quality). The estimations may only provide information for some kind of in-between level of USO, demanded on average in the EU. One lesson from this pilot study is that it is necessary to engage a subcontractor who can provide access to a business panel.

Different survey modes would hardly be an option in the business users study. Given the nature of the questions, the electronic survey is perhaps the best way of conducting the survey because it is very easy to forward an electronic questionnaire to the right person if we happen to contact the wrong person in the organisation.

Table A.8: Characteristics of the business survey respondents

	No. of respondents	Percent of total respondents
5 delivery days per week	124	87%
6 delivery days per week	18	13%
Yearly send less than 1.000 items	24	17%
Yearly send 1.000 to 9.999 items	28	20%
Yearly send 10.000 to 99.999 items	27	19%
Yearly send 100.000 to 999.999 items	29	20%
Yearly send 1.000.000 to 9.999.999 items	12	8%
Yearly send 10.000.000 to 40.000.000 items	12	8%
No information on nr of items sent yearly	10	7%
Monthly send more than 10.000 letters regarding business or financial transactions	19	13%
Monthly send more than 10.000 items of direct mail	30	21%
Make use of bulk mail services from the NPO	66	47%
Do not use bulk mail services from the NPO	56	39%
Do not know if bulk mail services from the NPO are used	20	14%
Nr. of employees less than 20	48	34%
Nr. of employees 20 to 99	40	28%
Nr. of employees 100 to 999	33	23%
Nr. of employees at least 1.000	16	11%
No answer on nr. of employees	5	4%
Located in city centre	55	39%
Located in urban area	70	49%
Located in rural area	11	8%
Location - unknown	6	4%

Source: Copenhagen Economics

Table A.9: Characteristics business customers mail flow

Element of USO	Business customers
Mail sent	
- Minimum	12
- Maximum	40,000,000
- Average	2,000,000
- Median	40,000
Business to Customer	44%
Business to Business	56%

Source: Copenhagen Economics based on SSI online survey for businesses customers

Measured in percentage of total mail flows (i.e. the share of mailers that has sent a particular type of mail during the last month), mail regarding business and financial transactions is the most common product in our sample, followed by direct mail. However, looking at share of mail flow as volumes (percentage of items sent) newspapers and magazines is the most common item followed by Mail regarding business and finance and parcels, cf. Table A..

Table A.10: What kind of mail did you send last month?

Type of mail	Frequency, mailers	Share of mail flow
Direct mail	48%	10%
Mail regarding business and financial transactions	56%	23%
Merchandise delivery (parcels etc.)	23%	0,3%
Parcels	44%	19%
News papers and magazines	23%	48%
Special delivery	16%	0,1%

Source: Copenhagen Economics based on SSI online survey for businesses customers.

METHOD FOR ESTIMATION WILLINGNESS TO PAY

The estimation of the willingness to pay estimates from the stated preference games were estimated using an econometric model. We estimated one model for recipient users and one model for mailers.

From the answers to the stated preference choice pairs a utility function was estimated. The preferences regarding infrastructure services were analyzed by estimating a utility function. The utility function evaluates the alternatives by cost and service characteristics. For the recipient users, the theoretical approach to the estimation of willingness to pay higher tariffs is that of microeconomic consumer theory. In consumer theory, individual consumers choose consumption bundles to maximize utility.

The alternatives are described by a number of attributes, and these attributes are different for each respondent and each choice. The choice of the respondent reveals the respondent's preferences among the alternatives. A probability model is used in order to allow effects of unobserved variation among the respondents and to take pure random choices into account as well as errors due to measurement or incorrect information. The random utility approach was formalized by Manski (1977).²⁰⁰ In this model, the choice probability of alternative A is a function of the differences between alternative A and alternative B. In order to estimate the model, a probability function and functional form of the utility function must be specified. The cumulative logit function is applied and the utility function is assumed to be of a simple linear form.

²⁰⁰ Manski, C. (1977), "The structure of random utility models." *Theory and Decision* 8, 229-54.

$$Pr = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \dots + \beta_K X_K)}}$$

Pr = probability of choosing alternative A

β = coefficient

X = variables (measured in difference between alternative A and B)

In order to take heterogeneity among respondents into account, receivers' socio-economic variables and mailers' characteristics are included in the model. These background variables reflect the different preferences about the attributes included in the game, and are included by letting the coefficients of the utility function vary for different groups of respondents.

The model is estimated by maximum likelihood. This estimation method gives unbiased and efficient estimates. The method is described e.g. in Greene (1993).²⁰¹

The willingness to pay is calculated from the parameter values. This is done by dividing the parameter for the service level(s) of interest by the cost parameter. By this method the value of a service level is measured in the same units as for the tariff.

GAMES FOR THE RESIDENTIAL SURVEY

Three service parameters are considered in the Stated Preference questions. These may change in the future USO. The changes regard the frequency of delivery to one's residence and access to post offices:

Delivery frequency

- 6 days a week
- 5 days a week
- 3 days a week, every second day

Post office:

- You can use the post office you use most frequently at present
- The post office you use at present is closed

These changes to services will be accompanied by changes to stamp prices:

- € 0.44
- € 0.55
- € 0.72
- € 0.90

²⁰¹ Greene, W.H. (1993), *Econometric Analysis*, Second edition, Prentice Hall.

Set 1

Please consider the following alternatives and state which you prefer. Please choose either service level A or B:

SP1	Service level A	Service level B
Delivery frequency	6 days a week	3 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.90	€ 0.55

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP2	Service level A	Service level B
Delivery frequency	6 days a week	3 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.90	€ 0.44

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP3	Service level A	Service level B
Delivery frequency	6 days a week	3 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.44	€ 0.72

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP4	Service level A	Service level B
Delivery frequency	3 days a week	6 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.55	€ 0.90

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP5	Service level A	Service level B
Delivery frequency	3 days a week	6 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.90	€ 0.44

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP6	Service level A	Service level B
Delivery frequency	3 days a week	5 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.72	€ 0.44

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP7	Service level A	Service level B
Delivery frequency	5 days a week	5 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.44	€ 0.90

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternative and state which you prefer.

SP8	Service level A	Service level B
Delivery frequency	5 days a week	6 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.72	€ 0.72

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Set 2

Please consider the following alternatives and state which you prefer. Please choose either service level A or B:

SP1	Service level A	Service level B
Delivery frequency	3 days a week	6 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.44	€ 0.90

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP2	Service level A	Service level B
Delivery frequency	5 days a week	3 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.72	€ 0.55

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP3	Service level A	Service level B
Delivery frequency	5 days a week	3 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.72	€ 0.44

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP4	Service level A	Service level B
Delivery frequency	3 days a week	5 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.44	€ 0.90

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP5	Service level A	Service level B
Delivery frequency	6 days a week	5 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.90	€ 0.44

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP6	Service level A	Service level B
Delivery frequency	3 days a week	6 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.44	€ 0.72

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP7	Service level A	Service level B
Delivery frequency	5 days a week	5 days a week
Post office closest to your residence	Is closed	Stays open
Stamp price, std. letter	€ 0.44	€ 0.72

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer.

SP8	Service level A	Service level B
------------	------------------------	------------------------

Delivery frequency	3 days a week	5 days a week
Post office closest to your residence	Stays open	Is closed
Stamp price, std. letter	€ 0.55	€ 0.55

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

BUSINESS SURVEY GAMES

Three service parameters are considered in the following questions. These may change in a future USO. The changes regard the frequency of delivery, access to post offices and whether bulk mail is included in the USO or not.

The changes in the USO may or may not change the actual services offered by the National Postal Operator.

Delivery frequency:

- 6 days a week
- 5 days a week
- 3 days a week, every second day

Post office:

- Number and structure of post offices as now
- Post offices required in large communities only, i.e. only 50 % of the present number of post offices

Bulk mail:

- Included in the USO
- Not included

These changes of the services will be accompanied by changes of the price of the services your organisation currently receives.

Price of postal services:

- 2.5% reduction
- As now
- 5% increase
- 7% increase

First round

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP1	USO A	USO B
Delivery frequency	6 days a week	6 days a week
Post office	As now	In large communities only
Bulk mail	In USO	In USO
Price of postal services	7% increase	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP2	USO A	USO B
Delivery frequency	3 days a week	5 days a week
Post office	As now	In large communities only
Bulk mail	Not in USO	Not in USO
Price of postal services	2.5% reduction	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP3	USO A	USO B
Delivery frequency	5 days a week	6 days a week
Post office	As now	As now
Bulk mail	In USO	In USO
Price of postal services	2.5% reduction	7% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP4	USO A	USO B
Delivery frequency	5 days a week	3 days a week
Post office	As now	As now
Bulk mail	In USO	Not in USO
Price of postal services	7% increase	2.5% reduction

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP5	USO A	USO B
Delivery frequency	6 days a week	6 days a week
Post office	In large communities only	As now
Bulk mail	Not in USO	In USO
Price of postal services	2.5% reduction	5% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP6	USO A	USO B
Delivery frequency	5 days a week	3 days a week
Post office	As now	As now
Bulk mail	Not in USO	In USO
Price of postal services	2.5% reduction	7% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP7	USO A	USO B
Delivery frequency	6 days a week	6 days a week
Post office	In large communities only	As now
Bulk mail	In USO	Not in USO
Price of postal services	As now	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP8	USO A	USO B
Delivery frequency	6 days a week	5 days a week

Post office	In large communities only	In large communities only
Bulk mail	Not in USO	In USO
Price of postal services	As now	5% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Second round

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level "USO A" or "USO B".

SP1	USO A	USO B
Delivery frequency	5 days a week	5 days a week
Post office	As now	In large communities only
Bulk mail	In USO	In USO
Price of postal services	10% increase	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level "USO A" or "USO B".

SP2	USO A	USO B
Delivery frequency	3 days a week	5 days a week
Post office	As now	In large communities only
Bulk mail	Not in USO	Not in USO
Price of postal services	20% reduction	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level "USO A" or "USO B".

SP3	USO A	USO B
Delivery frequency	5 days a week	6 days a week
Post office	As now	As now
Bulk mail	In USO	In USO
Price of postal services	As now	10% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP4	USO A	USO B
Delivery frequency	5 days a week	3 days a week
Post office	As now	As now
Bulk mail	In USO	Not in USO
Price of postal services	AS now	25% reduction

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP5	USO A	USO B
Delivery frequency	5 days a week	5 days a week
Post office	In large communities only	As now
Bulk mail	Not in USO	In USO
Price of postal services	5% reduction	10% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP6	USO A	USO B
Delivery frequency	5 days a week	5 days a week
Post office	In large communities only	As now
Bulk mail	In USO	Not in USO
Price of postal services	As now	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP7	USO A	USO B
Delivery frequency	6 days a week	5 days a week
Post office	In large communities only	In large communities only
Bulk mail	Not in USO	In USO
Price of postal services	As now	5% increase

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP8	USO A	USO B
Delivery frequency	5 days a week	3 days a week
Post office	In large communities only	As now
Bulk mail	In USO	In USO
Price of postal services	As now	20% reduction

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

Change of one game design

During round two one game was changed to avoid correlation between USO and price.

Please consider the following alternatives and state which you prefer. You may not like either, but please indicate your preference for either service level “USO A” or “USO B”.

SP7	USO A	USO B
Delivery frequency	6 days a week	5 days a week
Post office	In large communities only	In large communities only
Bulk mail	Not in USO	In USO
Price of postal services	As now	As now

Definitely A	Maybe A	Neither nor	Maybe B	Definitely B
--------------	---------	-------------	---------	--------------

STATA-OUTPUT RESIDENTIAL SURVEY

Probability for choosing alternative A = f (price, delivery freq 3, delivery freq 6, post office non-internet users, post office internet users)

Price difference in price between alternative A and alternative B

Delivery freq 3 Delivery 3 days per week compared to 5.
Dummy = 1 if delivery in alternative A is 3 days per week.

Delivery freq 6 Delivery 6 days per week compared to 5.
Dummy = 1 if delivery in alternative A is 6 days per week.

Post office non-internet dummy = 1 if post office closest to the residence remains open.
Non-internet users.

Post office internet dummy = 1 if post office closest to the residence remains open.
Internet users.

Logistic regression
Log likelihood = -1783.6264

Number of obs = 3611
LR chi2(5) = 1438.58
Prob > chi2 = 0.0000
Pseudo R2 = 0.2874

dwekch	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
dprice	-.025426	.0015284	-16.64	0.000	-.0284217	-.0224303
delivery freq 3	-.4365641	.0749398	-5.83	0.000	-.5834433	-.2896848
delivery freq 6	-.1110937	.0753913	-1.47	0.141	-.2588579	.0366706
Post office open; non-internet users	2.18234	.1283277	17.01	0.000	1.930823	2.433858
internet users	1.335003	.0555673	24.02	0.000	1.226093	1.443913
_cons	-.0409731	.044786	-0.91	0.360	-.128752	.0468057

STATA-OUTPUT BUSINESS SURVEY

Probability for choosing alternative A = f (price, delivery freq 3, delivery freq 6,
post office parcel, post office other,
bulk in USO bulk senders, bulk in USO other senders)

Price difference in price between alternative A and alternative B.

Delivery freq 3 Delivery 3 days per week compared to 5.
Dummy = 1 if delivery in alternative A is 3 days per week.

Delivery freq 6 Delivery 6 days per week compared to 5.
Dummy = 1 if delivery in alternative A is 6 days per week.

Post office parcel dummy = 1 if post office availability remains "As now" (com-
pared to only in large communities).
Only businesses that send more than 20% parcels or merchan-
dise out of total items sent last month.

Post office other dummy = 1 if post office availability remains "As now" (com-
pared to only in large communities).
Only businesses that up to 20% parcels or merchandise out of
total items sent last month.

Bulk in USO bulk senders dummy = 1 if bulk is included in USO.
Only for senders that send bulk mail with NPO.

APPENDIX B: ESTIMATION OF EMPLOYMENT DRIVERS

Model to estimate employment effects

To estimate employment effects in chapter 6, the following econometric model was used:

Change in employment = f(change in overall demand, change in e-substitution, change in technology, change in the level of competition)

We have chosen to focus on full-time equivalents (LIE) at the European NPOs as a measure of employment. By doing so, we capture structural changes from full-time to part-time contracts. We performed the estimation based on data for 31 countries²⁰² for the years 2003, 2007 and 2009. The variables used for each employment driver are provided in Table B.1.

Table B.1 Variables used for estimation

Drivers	Variable	Unit	Source
Employment	Employment in full time equivalents	Percentage change per year	Annual reports
E-substitution	Percentage of individuals that used internet for e-mailing in the last 3 months	Percentage point change per year	Eurostat
Overall demand	Real GDP growth	Percentage change per year	Eurostat
Competition	Market share of competitors	Percentage point change per year	ECORYS (2005), ECORYS (2008), Country fiche appendix
Technology	Level of automation	Percentage point change per year	NERA (2004), Country fiche appendix

Note: For Portugal and Hungary, employment data was complemented with UPU-data for 2003

Source: Copenhagen Economics

Our estimation results depend on the quality of available data. Data for competition and automation was available for 2003, 2007 and 2009. This determined what years to use the data for. Data was not available for all countries for all years. Longer consistent time series of data would have enabled us to find more robust results.

Estimations

We did estimations using a pooled, weighted, ordinary least squares regression of yearly differences 2003-2007 and 2007-2009. Countries with a larger number of employees were given higher weight. A fixed effects panel data model was tried originally, but there were not enough observations for 2003 to give reliable results. We have tried to test for fixed effects by including dummies to control for more country fixed effects. These proved insignificant. We have also tested different variables to capture the effect of e-substitutions, e.g. broadband penetration. The results were roughly unaffected by the choice of variable.

Our estimations show that:

1. Increasing the share of the population using the internet for email purposes by one percentage point decreases NPO employment by 0.7 percent. From 2003 to 2009 the share of the population using the internet for emailing increased on average by 4 percentage points per year. The employment effect of this is 3 percent per year.²⁰³

²⁰² EU countries and Iceland, Liechtenstein, Norway and Switzerland.

²⁰³ 0.7 times 4.

2. Increasing GDP by 1 percentage point increases NPO employment by 0.1 percent. The average GDP growth 2003-2009 was 1.8 percentage points. Thus, this effect gives a small increase in employment of 0.2 percent per year. However, this effect is statistically insignificant.
3. Increasing the market share of competitors has no effect on NPO employment. These results were statistically insignificant. Furthermore, the increase in competition in the data set was very small. On average, the market share of competitors increased by 0.6 percentage points per year, leading to practically no effect on employment.

The statistical insignificance of the results is mainly caused by the drawbacks of the data set, consisting in too few observations and containing too little variation in some of the variables. To get a model with more observations, we excluded automation. By doing so, we received the significant result that e-substitution has a negative employment effect. The summary statistics of variables are shown in Table B.2.

Table B.2 Summary statistics of variables

Variables	Nr of observations	Mean	Standard deviation	Unit
LIE	37	-2.14%	2.89%	Percent change per year
E-substitution	53	4.12%	1.53%	Percentage point change per year
GDP growth	60	1.77%	2.67%	Percent change per year
Competition	54	0.64%	1.06%	Percentage point change per year
Automation	32	2.62%	3.53%	Percentage point change per year

Note: Pooled data of differences means maximum number of observations is 62 (31 countries, changes over two periods).

Source: Copenhagen Economics

Variables

Change in employment – full-time equivalents (LIE) from annual reports

The difficulty regarding employment measures are due to the many ways available to measure employment (e.g. head count, full-time employees, full-time equivalents) and that some postal operators report only consolidated employment numbers for all activities (including also activities in areas such as financial services). To be able to capture changes from full-time to part-time contracts covering only postal activities the most reliable source was the annual reports from the NPOs. The annual reports often included timelines of LIE and therefore, changes in methods of counting employees could be traced. For some countries LIE was not available and headcount was used instead (FI, SE, UK).

Change in overall demand – Real GDP per capita growth

In recent years a decrease in traditional letter volumes has been observed throughout Europe, affecting the workload of postal operators and their demand for labour. This decrease is driven by several factors, such as increases in e-substitution and the financial downturn. To isolate the demand changes stemming from changes in the economic environment, and at the same time take into account that the tradition of sending physical letters varies across countries, we chose real GDP per capita growth as the relevant proxy for overall demand.

Change in e-substitution –share of citizens that used internet for sending or receiving e-mails in the last three months

It is widely recognised that there is a substitution from traditional letter mail in favour of electronic means of communication such as e-mail, e-banking and e-invoicing. For this reason, we have chosen e-mail use (the share of population that has used internet for e-mail purposes in the last 3 months) as the relevant proxy for e-substitution.

Technological restructuring - automation of letter sorting

Technological development creates the opportunity for postal operators to reduce the need for manual labour while at the same time increasing the quality of services. As letter sorting has traditionally been one of the most labour-intensive steps in the postal service production process, the introduction of mechanical equipment strongly reduces the need for manual work. This is the reason for our choice of automation of letter sorting as our proxy for internal technological restructuring.

Competition – market share of competing operators

Entry of new postal operators forces incumbent operators to efficiency in order to protect their market shares. Due to the labour intensive nature of postal services, the process of increasing efficiency often contains employment reducing measures at the NPO. The competitive threat stemming from alternative operators is not linked to the number of competitors in the market, but to their relative strength. As a quantitative measure of this strength, we use the market share of competing operators as the proxy for competition.

Estimation results

Model 1, with automation

Change in employment = f (growth GDP, change e-substitution, change competition, change automation)

Source	SS	df	MS	Number of obs =	24
Model	.003381978	4	.000845494	F(4, 19) =	2.52
Residual	.006363831	19	.000334938	Prob > F =	0.0749
Total	.009745809	23	.000423731	R-squared =	0.3470
				Adj R-squared =	0.2095
				Root MSE =	.0183

grfte	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Growth gdp	.1720356	.1420763	1.21	0.241	-.1253336 .4694048
Change e-sub	-.6180258	.2466097	-2.51	0.021	-1.134186 -.1018658
Change comp	.0090218	.3240358	0.03	0.978	-.6691929 .6872365
Change aut	-.0661673	.1328534	-0.50	0.624	-.3442327 .2118981
_cons	.012732	.011029	1.15	0.263	-.0103519 .0358159

Model 2, without automation

Change in employment = f (growth GDP, change e-substitution, change competition, change automation)

Source	SS	df	MS	Number of obs =	32
Model	.004074686	3	.001358229	F(3, 28) =	5.38
Residual	.007062907	28	.000252247	Prob > F =	0.0047
Total	.011137593	31	.000359277	R-squared =	0.3658
				Adj R-squared =	0.2979
				Root MSE =	.01588

grfte	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Growth GDP	.1369484	.1074174	1.27	0.213	-.0830862 .3569831
Change e-sub	-.7391771	.1943961	-3.80	0.001	-1.137379 -.3409747
Change comp	.0308961	.2824169	0.11	0.914	-.5476086 .6094009
_cons	.0142269	.0096122	1.48	0.150	-.0054628 .0339167

APPENDIX C: PURCHASING POWER STANDARD (PPS) FOR COUNTRIES IN 2009

Table 0.1 Purchasing Power Standard (PPS) for countries in 2009

Country	PPS 2009
Austria	1.137
Belgium	1.154
Bulgaria	0.461
Cyprus	0.917
Czech Republic	0.690
Denmark	1.459
Estonia	0.700
Finland	1.229
France	1.168
Germany (including ex-GDR from 1991)	1.074
Greece	0.944
Hungary	0.625
Ireland	1.184
Italy	1.053
Latvia	0.718
Lithuania	0.637
Luxembourg (Grand-Duché)	1.201
Malta	0.757
Netherlands	1.127
Poland	0.567
Portugal	0.854
Romania	0.505
Slovakia	0.693
Slovenia	0.841
Spain	0.935
Sweden	1.104
United Kingdom	0.923
Iceland	0.963
Liechtenstein*	N/A
Norway	1.361
Switzerland	1.352

Note: *) PPS for Liechtenstein is no computed by Eurostat

Source: Eurostat nama_gdp_c