

IV THE NATIONAL REGULATORS VIEW ON REGULATION OF THE DIRECT MAIL MARKET

In accordance with Article 22 of the Directive 97/67 "each Member State shall designate one or more national regulatory authorities for the postal sector that are legally separate from and operationally independent of the postal operators". The postal regulators will have, in particular, to ensure compliance with the obligations stemming from the Directive. They may also be in charge of ensuring compliance with competition rules in the postal sector.

The role of the postal regulators is undoubtedly of the utmost importance to ensure that the liberalisation measures of direct mail that could be implemented in accordance with the provisions of the Directive would be fully respected by all direct mail players. As mentioned in other sections of this report, this would imply some practical considerations, from the definition of direct mail included in the Directive, to the means of ensuring compliance with the reserved services by private postal operators and potential new entrants. This section of the report assesses these issues.

The first practical issue with which postal regulators could be faced as a result of a hypothetical liberalisation of direct mail would be the difficulty of segregating the direct mail items from other forms of bulk mail (such as financial statements, invoices, etc.). In this connection, it should be taken into account that a specific legal status for direct mail items is already in place only in Austria, Germany and Spain, whereas in the remaining EU members there is no such legal definition for direct mail.

This matter is directly linked to the restrictions on inviolability of mail by which all operators are bound, and is by no means new. The 1992 Green Paper reflected opinions about the "difficulty of defining direct mail and preventing abuse, such as the fraudulent distribution of bulk reserved mail by operators not authorised to do so, since mail is inviolable" (Green Paper Guidelines, page 8).

All postal regulatory frameworks in the EU establish requirements on conditions of privacy of mail and inviolability. For example, the German Postal Act of 1998 states that "the detailed circumstances of the postal traffic (..) as well as the contents of postal items shall be subject to postal secrecy. Whosoever provides postal services on a commercial basis (..) shall be obliged to maintain postal secrecy".

In Spain, the right to the secrecy of communications is embodied in the Constitution. In this context, if a postal item is sent sealed, it could be understood that the sender is implicitly stating that the contents are private, whereas if the item is open or marked "open for inspection" then it should not be considered as private.

This interpretation is of relevance, since the Spanish Postal Act of 1998 establishes that "direct mail items must be distributed in an open envelope, in order to facilitate postal inspection". Actually, it could be understood that this provision is in fact limiting the liberalisation of direct mail to items that are open or marked open for inspection. This provision could lead to controversy in the future not only with private operators, but also with the senders and even recipients of direct mail.

The French Code des Postes et Télécommunications states that newspapers and printed matter among others are not included in the reserved area if they are sent in open an envelope or similar wrapping, ensuring easy verification.

Nevertheless, this kind of provision can also be found outside the EU: in the United States most direct mail is carried in the Third Class stream, which is not sealed against postal inspection.

An entirely different approach as regards inviolability of mail and regulatory control of potential abuses on the exclusive rights area is the one in Sweden. The Swedish Postal Act of 1993 obliges all operators to follow the inviolability ruling. Moreover, in case of undeliverable items the law provides that "if the sender's address is not known, the letter should be sent to the national regulatory authority", which is the only one entitled to open the item in specific circumstances.

A number of European public operators explicitly include in their contract with senders the right to inspect mail at the deposit stage, to ensure that the contents meet the conditions for access to the direct mail service.

In the UK, the public operator is responsible for enforcement of the monopoly of all direct mail items costing up to L1, but is often reluctant to take a company infringing the monopoly to Court due to practical enforcement problems. As a consequence of the Directive, it is expected that the regulator (Department of Trade and Industry) will assume responsibilities for enforcement.

No distinction is made in Sweden between direct mail letters and other addressed letters. The National Post and Telecom Agency is monitoring the delivery services of all letters which are addressed and in an envelope or closed in any other way. The regulator obtains statistics about the total volume of conveyed addressed items, but has no figures for direct mail volumes.

The Danish postal legislation makes no distinction between direct mail and other kinds of addressed letter post items. A basic principle is that addressed items in closed envelopes should be considered letters, regardless of their contents, if they conform to criteria laid down in legislation.

In Portugal, the Instituto das Comunicações de Portugal has competence for controlling the quality of service and prices applied by the public operator. However, ICP had not so far performed specific activities to control quality and prices of direct mail.

In Luxembourg the public operator is presently responsible for monitoring the direct mail market, although after transposition of the Postal Directive this will be attributed to a new independent body.

This is also the situation in the U.S., in which the U.S. Postal Service is responsible for monitoring the direct mail services, primarily through its Inspection Service.

To solve the inviolability issue, two regulators suggested in our survey the possibility of introducing the obligation for each operator to identify direct mail items on the

envelope, then introducing a self-regulation approach. However, this would not be considered as wholly satisfactory either.

Finally, it should be noticed that although most regulators (nine responses to our survey) believe that there would be no major difficulties in controlling the activities of potential new entrants into a fully liberalised direct mail market (such as companies already operating in non-addressed advertising), there is also a significant number of regulators (five responses) which foresee such a difficulty.

In this connection, the public operators of Germany, Denmark and Spain believe that some courier companies and non-addressed items delivery companies are already providing services, which are still strictly under their respective reserved areas. The volumes affected by such predatory practices are estimated to be significant in Germany and Spain. Moreover, six public operators out of seven answering this question considered that their current regulatory frameworks are not effective enough in order to preserve their reserved areas.

Article 2.8 of the Directive also includes a mandate to the postal regulators to interpret the term "significant number of addressees" in each State, and must publish an appropriate definition.

The second issue is that direct mail is becoming increasingly personalised, being more specifically targeted than other advertising channels. Therefore, this technological trend could imply that the basic criteria established in the Directive in order to determine whether or not a message could be deemed identical, could eventually have to be reinterpreted in the future. Indeed, the German Postal Act has established some detailed criteria that could differ from the transposition of the Directive in other Member State postal regulatory frameworks.

Article 9.5 of the Directive states that "Member States may provide for an identification system for direct mail, allowing the supervision of such services where they are liberalised". In this connection, our survey shows that most postal regulators do not foresee the implementation of specific direct mail monitoring systems. However, their opinions are more divided as regards the potential difficulties that may arise in controlling the activities of many operators acting in a fully liberalised direct mail market:

Table IV.1: National regulators monitoring systems

Number of responses	Will set up specific DM items identification system	Foresee difficulties in monitoring a fully liberalised market
Yes	3	5
No	9	8

Source: Arthur Andersen Survey, 1998

The advisability of setting-up identification systems for the carriers has also been

recommended by some of the public operators surveyed.

Moreover, some senders and public operators have pointed out the advisability of requiring a franking system for all direct mail operators which shows the date of posting by the senders of direct mail campaigns on the envelope, thus allowing both senders and recipients an estimation to quantify unjustified delays should they arise.

As mentioned above, postal regulators must be legally separated from and operationally independent of the postal operators. Again, the situation varies significantly among EU Member States. In Spain the President of the Board of the universal service provider, Correos y Telégrafos, is the Secretary General of Communications, which assumes the role of postal regulator, something that is certainly criticised by private operators. In Portugal, the postal regulator is the Instituto das Comunicações de Portugal, an autonomous regulatory authority, created by Decree-Law 283/89, of 23 August 1989, which is fully independent of the public operator.

The efficiency of the postal regulators is of utmost importance when assessing the liberalisation of the direct mail: the limitation of their resources in a scenario of numerous operators in the market could make the abuse of exclusive rights inevitable.

Certainly, the cost of providing an efficient regulatory control depends not only on the number of operators that may exist in the market, but also on the license system established and on their current internal organisation and resources. However, and although this matter lies beyond the scope of our study, we believe that monitoring the market in a new scenario of liberalisation may not need important additional costs, as the regulators surveyed consider that they do not see major difficulties in monitoring the new market.

Furthermore, an appropriate sanction regime is required to ensure that the reserved areas are respected. In this connection various postal acts, such as the ones of Germany and Spain have established a license system, under which licenses could be revoked in certain circumstances (e.g. unauthorised carriage of bulk mail other than direct mail).

In this connection, most of the regulators surveyed in our research stated that the sanction regime already existing in their countries is sufficient to preserve the reserved area: nine regulators expressed this view, whereas only three considered such penalties as neither effective nor sufficient for preserving the reserved area. Some regulators, such as the Ministry of Communications of Luxembourg, are presently drafting a new Postal Act, which provides for the creation of the function of criminal investigation in the regulation authority, and will also define the penalties for infringing the reserved area.

One regulator has pointed out as an additional issue the difficulty of controlling the items dropped into the mailboxes by the new entrants in the direct mail market, thus making it difficult to ensure that the reserved area is respected. In this regard, the provisions of the so-called "mail box law" of the United States should be taken into account: this law prohibits anyone (under penalty of a fine) from placing anything in a residential mail box. This puts companies trying to compete with USPS in direct mail at a great disadvantage. Direct mail delivered by the Postal Service requires an address, whereas if delivered by companies trying to compete with the Postal Service it must be

unaddressed. The unaddressed mail business in the U.S. is small (except for newspaper inserts) because of the mail box law, which prohibits the deposit of certain materials in mail boxes without affixation of postage.

When asked whether the introduction of full liberalisation of the direct mail market from 1 January 1993 would be considered as an adequate pace for liberalising the market, our survey showed that most regulators agree with that view:

Table IV.2: Appropriateness of full liberalisation of DM from 1 January 2003

	Would be reasonable	Would be too slow	Should have been liberalised already
Nº of responses	6	1	3

Source: Arthur Andersen Survey, 1998

There is also significant consensus among postal regulators (nine responses) that such liberalisation would not endanger the provision of the universal services. Three regulators pointed out that this would imply lower prices, better and new products, more competition, more cross-border activities and more activity in general in this market segment.

Another regulator highlighted that liberalisation of the direct mail market would offer private postal operators already serving other parts of the postal market (courier services, non-addressed items, etc.) an added incentive to establish or expand nationwide distribution networks. However, as general delivery services demand large

investments and place qualitatively different demands on the workforce involved in the delivery, this regulator does not expect significant changes to occur in the period 2003-2007 should the direct mail market become fully liberalised from 1 January 2003.

However, one regulator highlighted that such liberalisation not only would not imply significant improvements for the direct mail market as it is now, but would also probably imply the end of the uniform tariff scheme, with negative effects for territorial cohesiveness and for enterprises located outside large business centres.

V MODELLING

Introduction

In this section we present two different scenarios for evaluating the impact on demand, revenues, prices and employment of liberalisation of the direct mail sector in the EU. These scenarios are based on two given regulatory frameworks, over the periods 1997-2002 and 2003-2007.

The section begins with a description of the approach we have used to build up the scenarios, and then describes the likely trends in the main change drivers of the direct

mail market that have been used to construct and evaluate the impact on different scenarios.

Finally, we develop and present our quantification for the two scenarios for the periods 1997-2002 and 2003-2007 respectively, and present our conclusions.

It should be noticed that the proposed model has been built up for the sole purpose of providing the readers of this study with another item of information for assessing the likely impact of the liberalisation of direct mail. Therefore, we must emphasize that the results of our model should be interpreted cautiously and in the context of the study taken as a whole, and that the use of our model does not imply that alternative models may not also be legitimate.

V.1 Approach for constructing scenarios on the basis of expected total demand

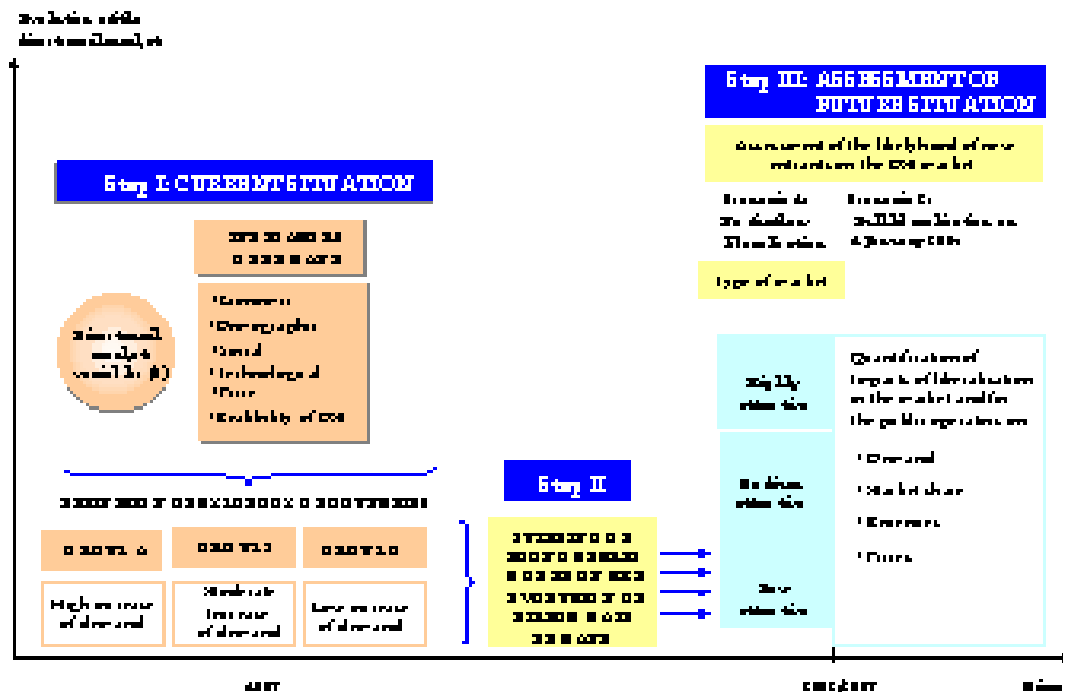
The approach used to construct the scenarios builds on the large amount of information that has been gathered on the direct mail sector, which has been presented in previous sections of the study.

Based on input from our research activities among public and private postal operators, postal regulators, senders and recipients of direct mail, direct mail companies and associations, consumer associations, some publications, previous studies and our experience, we have first identified the main variables that characterise the direct mail sector (described in section II) and assessed its current situation. Upon these variables we have then built up six change drivers or so-called "indicators", covering economic, demographic, social and technological factors affecting direct mail demand (described in sections II.1, II.2, II.3 and II.4), plus the impact of prices and the level of reliability of the service (described in sections III.1 and III.2).

Finally, we considered two possible regulatory frameworks: on the one hand, full liberalisation of the direct mail sector from 1 January 2003 and, on the other hand, no further liberalisation measures established at European Level beyond those already stated in the Directive and in current postal legislation in place as of the date of this study. A scenario-based econometric model has been developed to provide detailed quantitative projections for each of these two scenarios. By using these scenarios we have attempted to devise alternative futures for the direct mail sector under the given regulatory frameworks, rather than probability based forecasts.

As a result of this approach, we came up with a quantitative assessment of the impact on "total" demand, revenues, prices and employment should full liberalisation of the direct mail market be implemented at EU level on 1 January 2003.

The table below provides an overview of the approach used to construct the scenarios.



V.2 Definition of variables and indicators relating to the evolution of total demand

During this first step of the modelling we have analysed the current situation of the underlying factors affecting the direct mail sector. We first gathered available data in all EU countries for the twenty-one variables identified affecting the direct mail market, then built up indicators for the six direct mail change drivers identified in the previous phases of the study. The table below summarises the variables identified and the main sources of information used, which specific data are detailed, in Appendix H (confidential appendix only distributed to the EU Commission-DGXIII).

Variable	Definition	Data Source	Variables used in the Model
V1	Gross Domestic Product per person/year, in current purchasing power parities	EUROSTAT, 1996	✓
V2	Unemployment rate	EUROSTAT, 1997	
V3	Population with higher education	EUROSTAT, 1996	

V3	Population with higher education	EUROSTAT, 1990	
V4	Population living in urban areas	EUROSTAT, 1991	
V5	Number of households	EUROSTAT, 1991	✓
V6	Level of satisfaction with direct mail	Arthur Andersen Survey, 1998	
V7	Level of saturation with direct mail	Arthur Andersen Survey, 1998	
V8	Number of credit cards per 1000 inhabitants	European Monetary Institute, 1994	
V9	Women in the labour force	EUROSTAT, 1996	✓
V10	Quality of databases	Arthur Andersen Survey, 1998	
V11	Level of development of databases	Arthur Andersen Survey, 1998	
V12	Access to databases	Arthur Andersen Survey, 1998	
V13	Direct mail as a proportion of total postal items delivered	Arthur Andersen Survey, 1998	
V14	Population density	EUROSTAT, 1997	
V15	Technological substitution	Universal Postal Union, 1996	✓
V16	Range of products and services offered	Arthur Andersen Survey, 1998	
V17	Direct mail as a proportion of total direct marketing	FEDMA, 1996	
V18	Mail order per capita	FEDMA, 1996	
V19	Mail order in retail market	FEDMA, 1994	
V20	Reliability of service	Arthur Andersen Survey, 1998	✓
V21	Evolution of prices	Arthur Andersen Survey, 1998	✓

We have used in the economic model only those variables which have been proved to have a significant effect on demand, whereas the variables not used are those which would not have a significant effect on demand because their sensitivity to changes in demand is not important, or due to the fact that those factors will remain fairly the same in the next 5-10 years and therefore would not affect the evolution of demand.

In accordance with the findings of the previous sections of the study, the following change drivers were identified: economic factors, demographic factors, social factors, technological factors, prices and the level of reliability of the service.

The combination of variables for building these drivers/indicators in the econometric model, is summarised in Table below:

Indicator	Variables used	See Section
I1 (Economic factors)	V1 (GDP)	II.1.1

I2 (Demographic factors)	V5 (households)	II.2.3
I3 (Social factors)	V9 (working women)	II.3.3
I4 (Technological factors)	Substitution effect	See page V-7
I5 (Evolution of prices)	V21 (Evolution of prices)	III.1
I6 (Reliability of the service)	V20 (service reliability)	III.2

The equations for each indicator and the specific results for each EU country are described in detail in Appendices E¹, G¹ and H¹.

V.3 Econometric model on the total demand

The aim of this model is to analyze the impact of the above-mentioned six groups of factors (change drivers) that have a significant effect on changes in direct mail demand over a period of 5 years (up to the year 2002) and 10 years (up to the year 2007).

The best procedure for analyzing the model proposed would involve defining a functional relationship linking all these variables together, including any possible restrictive equations between the different factors that are interrelated. Unfortunately, the information that such an analysis would require is not always available in all EU countries, as there is only access to partial studies involving some of the factors listed above by themselves.

These information difficulties have meant that the model has had to be redefined in an aggregate format, so that the final variation in direct mail demand has been built up by accumulating the effects that are forecast by the changes in the different factors.

In algebraic terms, the proposed model, which has been performed with data in a country per country basis (see calculations in appendix H), and presented Appendix G¹ grouped by type of countries as defined below, is the following:

$$\text{Direct mail demand} = A_1 * I_1 + A_2 * I_2 + A_3 * I_3 + A_4 * I_4 + A_5 * I_5 + A_6 * I_6, \text{ where}$$

I₁ is the change in economic factors

I₂ is the change in social factors

I₃ is the change in demographic factors

I₄ is the change in quality factors

I₅ is the impact of technological substitution

I₆ is the change in prices of direct mail,

and the related "A_i" is the weight assigned to the change in each particular factor that is passed on to the change in direct mail demand.

To determine the values of the coefficients A_i, different types of information have been used depending on the data available and the experience gained in previous studies. It should be first pointed out that to begin with the overall aggregate effect has not been deemed appropriate, since as a result of the inter-relationships that exist between some of these factors, a direct aggregation would lead to an overvaluation of the change in direct mail demand. Therefore, adequate correcting factors were requested and included in the model.

Estimate of Economic factors (A₁ * I₁)

Estimate of A₁-

The recent Universal Postal Union (UPU) study "Post 2005, Core business scenarios", published in April 1997 points out that there is a consensus that a close link exists between economic growth (measured in terms of Gross Domestic Product) and mail volume growth, with a range of sensitivity between 0.8 and 1. This has led coefficient A₁ to be estimated at 0.9 in our proposed model (that is, a 1% increase in the Gross domestic Product leads to a 0.9% increase in the demand of direct mail).

Estimate of I₁-

I₁ is the expected growth rate of the gross domestic product in each country (see section II.1.1).

Estimate of Social Factors (A₁ * I₂)

Estimate of A₂-

This factor, which basically considers the variation in the direct mail demand due to the variation in the level of participation of women in the total labour force, is harder to estimate than the others, because it is not easy to get hold of the necessary information. These difficulties can, however, be reduced if one bears in mind that existing forecasts of trends in the participation of women in the labour force do not point towards any major changes in the majority of EU countries.

The value for coefficient A₂ has been estimated at 0.4 in our model. However, the contribution of this factor to the overall change in direct mail demand, regardless of the final estimate given for A₂, would be virtually zero, as no major changes in the majority of EU countries is expected in the participation of women in the labour force (see section II.3.3).

Estimate of I₂-

I₂ is the expected growth rate of the participation of women in the labour force in each country (see section II.3.3).

Estimate of Demographic Factors ($A_3 * I_3$)

Estimate of A_3 -

The above-mentioned UPU analysis also concludes that the impact on the increase in mail demand that should be attributed to changes in demographic factors, such as the variation in the number of households, could be estimated as a one-to-one relationship, even if there were no economic growth (that is, a 1% increase in the number of households leads to a 1% increase in direct mail demand).

However, our present study is based on a comparative analysis of both the economic and demographic factors. As the demographic factor could be statistically related to the economic factor, it therefore should be assessed which part of the effect on the change in direct mail demand that will result from increases in the population would have already been taken into account when assessing the effects caused by the changes in the economic factor.

A way of getting round this difficulty is to remove the part that is already contained in the effect projected for the economic factor from the effect projected for the demographic factor. In order to determine this calculation, the statistical degree of correlation between the changes in the economic and the demographic factors has been calculated. The statistical correlation coefficient has been calculated for each of the fifteen countries being studied and for the years between 1992 and 1996, giving a wide range of values.

The statistical regression establishes that the determination coefficient measured using "r²" expresses the part of the changes in the demographic factor that should be attributed to the economic factor.

Consequently, the values of the index (1-r²) would indicate the part of the economic factor that is not explained by the demographic factor. According to this reasoning, and in order to prevent overlapping effects from accumulating in the projected demand, it has been proposed that the A_3 coefficient should be corrected by a new coefficient that would be determined in each country by $A_3 = A'_3 * (1-r^2)$.

The resulting coefficient in each case, which ranges between 0.3 and 0.9 (see Annex H), should then be interpreted as the weight of changes in the demographic factor in the change in direct mail demand which was not taken into account previously when the effect of the economic factor was considered.

Estimate of I_3 -

I_3 is the expected growth of the number of households in each country (see section II.2.3).

Estimate of Quality Factors ($A_4 * I_4$)

Estimate of A_4 -

This coefficient has also been determined on the basis of the UPU study and its value

This coefficient has also been determined on the basis of the UPU study, and its value has been estimated at 0.4 (that is, a 1% of increase in the reliability of service leads to a 0.4% increase in the demand of direct mail).

Since the quality factor of the direct mail services is not related to the change in the demographic and economic factors, the effect of this factor may be added to the model, as its contributions to direct mail demand are effectively cumulative with regard to the other factors, with which it has no connection.

Estimate of I_4

I_4 is the expected growth rate of the quality of service in each country.

The aforementioned UPU analysis concludes that the quality of service in Western European countries is expected to increase annually by an average of 2.17%.

Quality of service in this context considers improvements in average transit times and reability of the service.

The annual average increases used in our model depend upon the current quality of service perceived in each country. That is, in those countries where quality of service is already perceived to be very high, the increases used in the model are below 2.17%, whereas in those countries where significant quality of service improvements are still needed, the increases used are over 2.17%.

The perception of quality of service in each country has been defined by Arthur Andersen based upon the views of the different direct mail players and our knowledge of the market.

The table below summarises the annual increases of quality of service defined by Arthur Andersen and introduced into the model:

	Annual Increases		
	In a Situation of non Liberalisation	In a Situation of Liberalisation	
		Period	Period
		1998-02	2003-07
Countries already giving high quality service	1.57%-1.75%	1.57%-1.75%	1.60%-1.92%
Countries giving average quality service	1.96%-2.24%	1.96%-2.24%	2.00%-2.29%

Countries giving moderate quality			
service	2.38%-3.14%	2.50%-3.46%	2.50%-3.46%

Estimate of Technological Substitution ($A_5 * I_5$)

*Estimate of $A_5 * I_5$*

The A_5 coefficient should express the effect that the impact of technological substitution would have on changes in direct mail demand. However, the UPU study concludes that this effect will depend to a great extent on the present levels of technological development in each country.

Therefore, rather than building up a coefficient for technological substitution, our model takes into account the range of impact estimated by the UPU study, which is between 0.61 and 3.33 per cent of decrease in demand of direct mail annually, adjusted in each country depending upon their current level of penetration of alternative means of direct marketing communication.

According to this proposal and bearing in mind the information that has been gathered about each of the EU countries during our study, the following values have been considered for variable $A_5 * I_5$:

Table V.3.1.: Percentage of decrease in demand of direct mail services due to technological substitution (variable $I_5 * A_5$)

Member State	1998-2002	2003-2007
Denmark, Germany, the Netherlands and U.K.	0.61	0.61
France, Sweden, Ireland, Belgium, Finland and Austria	1.97	1.36
Italy, Portugal, Luxembourg, Spain and Greece	3.00	1.97

The above table shows that countries in the two first groups have an important degree of technological development. Therefore, the effect of technological substitution in those countries was felt to a large extent in the last few years, and although still important, the ratio of substitution is expected to be lower in the coming years (in the lower band defined in the UPU study). Additionally, the table shows that in countries in the last group, advanced technologies in advertising are not yet very developed compared to other high income countries. Therefore, the ratio of substitution for the period 1998-2002 is expected to be important (in the upper band defined in the UPU study), whereas in

the period 2003-2007 the substitution effect will start to decrease.

Estimate of Direct Mail Prices ($A_6 * I_6$)

Estimate of A_6 -

It has not been possible to find any information developed in earlier studies that provide values for this coefficient. Indeed, no analysis has been found that enables a comparative analysis of the changes in price and direct mail demand for all fifteen countries in the European Union to be made.

As an alternative, our model includes an estimate based on the information available on the recent evolution of the volumes and net prices in some specific direct mail markets, and the relevant corrections are made in order to remove any accumulation of overlapping effects.

We first obtained the changes in direct mail volumes and in prices in a sample of countries for a set of years. After adjusting a linear regression using the quadratic minimum method, the statistic coefficient of regression for the change in direct mail demand in line with the change in price was set as (0.807) (see Annex H¹). That is, a 1% increase in prices leads to a 0.807% decrease in the demand for direct mail.

This coefficient, which we shall call A'_6 , cannot be used directly in the explanatory model proposed because, as a result of the inter-relationship between changes in quality and the price of the direct mail services, certain of the effects that would be projected in price changes have already been included in the effect resulting from changes in quality.

To solve this difficulty, in the same way as for the analysis of the A'_3 coefficient, the value of the A'_6 coefficient was corrected by removing the part of the effect that is explained by the quality factor from the influence that price changes have on the change in direct mail demand.

This was done by first obtaining the average statistic correlation coefficient of the pairs of values of quality and price set out in our survey in each country in three different moments of time. Then, the average determination coefficient ($1-r^2$) was estimated, and has an average value of 0.92 (see Annex H¹). On the basis of these values, it can therefore be deduced that the A_6 coefficient would be determined as the product of $A'_6*(1-r^2)$, which would finally complete the estimate of the proposed model.

Estimate of I_6 -

I_6 is the expected growth/decrease in prices in each country. The evolution of prices in the incoming years in each EU country depends on the strategy that the public postal operator and new entrants may establish for the purpose of gaining market share. Furthermore, the strategy that the different operators may follow will depend on the attractiveness of the market.

Therefore, the expected evolution of prices used in the model for each EU country were defined by Arthur Andersen based on the views of the different direct mail market

players (through the questionnaires received and interviews carried out) and our knowledge of the market, corrected on the basis of the conclusions obtained from the econometric model prepared on the market share (see Appendix G¹), which evaluates the attractiveness of each market.

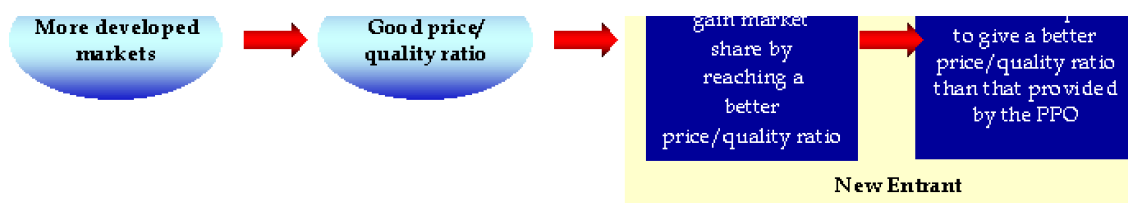
In this connection, the model of market share includes, among the different variables, the evolution and level of prices in each country as follows: The lower the price of direct mail services is with respect to standard letters and purchasing power, the less attractive the market is and the lower the possibility of reducing prices. Therefore, we have built the estimate of I_6 (evolution of prices) taking into account the results of the analysis of this variable in each country (see section III.1.5.5).

The table below summarises the expected evolution of prices (not adjusted by inflation) used by Arthur Andersen in the econometric demand model (taking the year 1997 as base 100).

	Annual Increase/Decrease			
	In a Situation of		In a Situation of	
	Statuos Quo		of Liberalisation	
	Period	Period	Period	Period
	1998-02	2003-07	1998-02	2003-07
Countries highly attractive for new entrants	100.47	100.98	100.20	96.41
Countries attractive for new entrants	100.16	100.33	100.12	95.20
Countries moderately attractive for new entrants	100.85	101.75	100.04	94.92
EU average	100.51	101.03	100.15	95.19

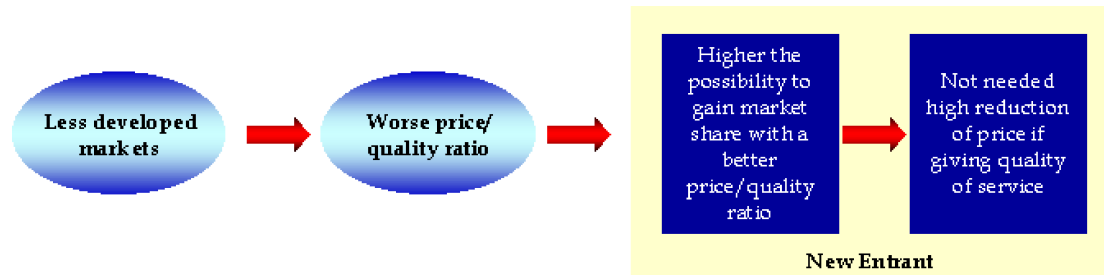
The table above shows that the less attractive the market is (i.e., the markets where the most advanced and reliable public postal operators are located), the higher the investment needs of new entrants to gain market share will be and, therefore, the higher their investment needs, the more they will speculate with prices.

¹ Confidential appendix only distributed to the European Commission-DG XIII.





On the other hand, the more attractive the market is (i.e., the markets where the least advanced and developed public operators are located), the higher the efforts of new entrants and the lower their efforts in terms of price will be.



Other variables considered-

In addition to those factors indicated above, some prior studies showed that there was a definitive link between the growth of the advertisement expenditure and mail volume growth.

We have performed a review of the changes in direct mail volumes and in advertising expenditure in all EU countries for a set of years. After adjusting a statistic linear regression using the quadratic minimum method (as explained in the estimation of A₆), the regression coefficient obtained showed that the sensitivity of changes in advertising expenditure in relation to direct mail volumes is too little. Therefore, the contribution of this factor to the overall change in direct mail demand would be close to zero. Consequently, this factor has not been considered in our model of demand for direct mail.

Experience also shows that there would be a direct link between the evolution of direct mail demand and the degree of saturation of final recipients receiving such mail. However, the interviews carried out with postal experts throughout the whole EU show that final recipients do not yet seem to be tired of receiving direct mail. Therefore, the contribution of this factor to changes in direct mail demand would be too slight in coming years (consequently, this factor has not been considered in our model of demand for direct mail).

Other considerations-

The entire process for estimating coefficients described above has been based on a structure that is not the one normally used in econometric models. Generally, observed data enable the explanatory model to be inferred from actual fact and the inter-connections between the variables are concluded. In this case, however, there is no combined data for all the variables that are of interest, and partial information referring to collateral studies that focus on partial aspects of the model has had to be used.

From a strictly econometric point of view, this process of analysis would need to be read critically and its conclusions should therefore be interpreted cautiously. However, the

force of the arguments of the reasoning used and the fact that the model has been designed for forecasting purposes means that the conclusions that can be drawn from the model may be regarded as being rigorous and scientific.

It should be borne in mind that the ultimate aim pursued by setting up this demand model is to evaluate future projections in the different scenarios of liberalization of direct mail. In this context, we consider the estimate model to be perfectly valid and reliable. All the same, it is clear that the acceptance of the model would be more critical if the aim of the study were analytical, there being more interest in discovering any possible inter-relationships between the variables included in the model than in obtaining future projections.

Nevertheless, the results of the model shown below must be considered as an integral part of the whole study and therefore should not be taken out of context.

These estimations respond to our best estimates, which are reasonably supported. However, differences between estimations and actual results will arise and these differences might be crucial if the estimated events and circumstances do not materialize in view of the uncertain nature of any information based on prediction.

Presentation of results of the model-

Our previous research clearly shows that although the situation with regard to the direct mail market differs significantly in the fifteen different EU countries, there are also some clear similarities. Therefore, in order to properly present these differences and similarities in our scenarios, we are presenting the results of the model aggregated in three generic groups for EU countries, based on our analysis of their individual direct mail sectors, which we have called "groups A, B and C".

V.4 Economic model of direct mail market share

The loss of a portion of the market share is one of the major impacts that liberalisation of direct mail may have on the public postal operators if such a decision is finally taken. Therefore, the estimation of such a loss of market share is the first factor to be taken into consideration when evaluating the impact that the liberalisation of direct mail may have on those services which may be reserved for the public postal operator as a universal service provider.

As in section V.2, the approach used to construct the scenarios on the evolution of the market share builds on the large amount of information that has been gathered on the direct mail sector, which has been presented in sections II and III of the study.

Based on input from our research activities among the participating postal players, we have first identified the main variables in relation to the likelihood of new operators entering the direct mail market if liberalisation takes place. Based on these variables we have built an econometric model which will show the expected market share that new entrants and private operators may gain in detriment of the public postal operator.

The weighting given to each variable and the specific results for each EU country are

thoroughly described in Appendices F¹, G¹ and H¹.

The table below summarises the variables identified and the main sources of information used.

Variable	Definition	Data Source
V'1	Evolution of demand for direct mail services	Arthur Andersen econometric model
V'2	Level of prices	Official tariff leaflets and EUROSTAT, 1997
V'3	Reliability of service	Arthur Andersen Survey, 1998
V'4	Existing alternative delivery networks	Arthur Andersen Survey, 1998 and Internet
V'5	Population density	EUROSTAT, 1997
V'6	Average number of direct mail items per household	Universal Postal Union, 1996
V'7	Range of products and services offered	Arthur Andersen Survey, 1998

As for the econometric total demand model explained in section V.3, we considered two possible regulatory frameworks: on the one hand, full liberalisation of the direct mail sector from 1 January 2003 and, on the other hand, no further liberalisation measures established at European Level beyond those already stated in the Directive and in current postal legislation in place as of the date of this study. A scenario-based econometric model has been developed to provide detailed quantitative projections for each of these two scenarios.

As a result of this approach, we came up with a quantitative assessment of the impact on revenues, prices and employment of the public postal operator should full liberalisation of direct mail market be implemented at EU level on 1 January 2003.

Econometric model of market share-

The best procedure for analysing the model proposed would involve defining a functional relationship linking all these variables, including any possible restrictive equations between the different interrelated factors. Information difficulties have meant that the model has had to be redefined in an aggregate format, with the result that the final variation in the market share of the public postal operator has been built up by

accumulating the effects that are forecast by the changes in the different factors.

In algebraic terms, the proposed model is the following:

$$I'1 I'2$$

Direct mail market share = $A'1*(V'1 + V'2 + V'3 + V'4) + A'2*(V'5 + V'6 + V'7)$, where

I'1 are those variables measuring how attractive the market is perceived to be in general terms. That is, the more attractive the market is, the higher the number of new entrants and the lower the market share of the public postal operator will be.

I'2 are those variables measuring how developed and efficient the current public postal operator is in each market. That is, the more developed and efficient the public postal operators are, the higher the difficulties of new entrants to gain market share, and therefore the loss of market share of the public postal operator, will be.

and the related "A'i" is the weight assigned to each particular variable that is passed on to the change in direct market share.

The values of the "A'i" coefficients have been defined by Arthur Andersen according to the information provided by the postal experts consulted and experience gained from previous studies. Adequate correcting factors, through statistic correlation coefficients, were included in the model as a result of the inter-relationships that exist between some of these factors on the basis defined in section V.3. Those factors are V'2 (Price) and V'3 (Reliability). In fact, the price and reliability factors are statistically related to the evolution of the demand factor (V'1). Therefore it has been calculated which part of the effect on changes in prices and reliability would have already been taken into account when assessing the effects caused by the changes in direct mail total demand.

The statistic correlation coefficient has been calculated by obtaining the average correlation coefficient of the pairs of values of quality and demand on the one hand, and price and demand on the other, set out in our survey in each country. Then, the average determination coefficients (1-r²) have been estimated, with an average value of 0.83 and 0.99, respectively.

In addition to this analysis, when building up the econometric model, we have also taken into account the perception that the different public postal operators and other potential operators have of the evolution of their domestic market share in relation to each other and to other private and public operators entering their market. Such information has been obtained from the questionnaires received from the public postal operators and other potential operators participating in the study.

We have then analysed the consistency between the results coming from the model and the perception of the public postal operators.

As a result of the econometric model, we have identified three groups of countries:

1. Countries where the general attractiveness of the market is very high due to the fact that the expectations of growth are high and the degree of development and the reliability-price ratio of the public postal operator is moderate.
2. Countries where the general attractiveness of the market is moderate due to the fact the expectations of growth of the market are moderate since the services already given by the operating postal companies are highly developed and very good in terms of quality and price; and
3. Countries in an average situation.

The table below summarises the expected evolution of the market share of the public postal operators used by Arthur Andersen in the scenarios presented.

Those percentages has been obtained taking into account the following factors:

- The results of the market share model,
- The perceptions of the postal player consulted (mainly public postal operators and potential new entrants).
- Our knowledge of the market.

Type of Country		1997	2002	2007
Highly attractive	Already liberalised	85.0%	85.0%	82.0%
Countries	Not liberalised	100.0%	100.0%	75.0%
Attractive countries	Already liberalised	80%	80%	80%
	Not liberalised	99.3%	99.3%	87.7%
Moderately attractive	Already liberalised	95.0%	95.0%	83.0%
Countries	Not liberalised	100.0%	100.0%	89.3%

The table above shows that in countries highly attractive for new entrants the market share that the public operator is expected to lose in the next 10 years is higher than it is in those countries where the degree of attractiveness of the market is not as important.

V.5 Scenarios for 1998-2002 and 2003-2007

Based on the proposed direct mail demand model, we next describe the most likely future scenarios in the direct mail sector under two different regulatory frameworks.

Both scenarios have been presented by groups of countries as defined in section V.3.

We first present the likely scenario for 1997-2002 and 2003-2007 with no further liberalisation measures apart from those already implemented under the Postal Directive

A	4,807	1,241	6,338	1,632	8,124	2,085	32%	31%	69,0%	68,0%
B	2,427	518	3,125	678	4,203	910	29%	31%	73,2%	75,7%
C	11,732	3,683	13,415	4,255	16,641	5,310	14%	16%	41,8%	44,2%
Total EU	18,966	5,442	22,878	6,565	28,968	8,305	21%	21%	52,7%	52,6%

The evolution of revenues of direct mail in the different periods and scenarios defined results from applying the estimated prices gathered from the questionnaires to the volumes estimated in the direct mail demand model designed.

We present below the results of scenario 2, which is based on the assumption that full liberalisation of the direct mail sector in the EU will be implemented as from 1 January 2003.

The figures refer to the total direct mail market.

Scenario 2										
							Total Increase (in percentage)			
1997		2002		2007		From 1997 to 2002		From 1997 to 2007		
Type of Country	Volume (million)	ECU (million)	Volume (million)	ECU (million)	Volume (million)	ECU (million)	Volume	ECU	Volume	ECU
A	4,807	1,241	6,348	1,634	8,442	1,983	32%	32%	75,2%	59,8%
B	2,427	518	3,334	717	4,292	893	37%	38%	76,8%	72,4%
C	11,732	3,683	14,149	4,449	17,161	5,184	21%	21%	46,3%	40,8%
Total EU	18,966	5,442	23,831	6,800	29,895	8,060	26%	25%	57,6%	48,1%

We present below the results of scenario 1 and 2 for the total direct mail market.

Volume (Million)						
2002				2007		
Type of Country	Liberalisation	No Liberalisation	Difference	Liberalisation	No liberalisation	Difference
A	6,348	6,338	10	8,442	8,124	318
B	3,334	3,125	209	4,292	4,203	89
C	14,149	13,415	734	17,161	16,641	520
Total	23,831	22,878	953	29,895	28,968	927

Volume (Percentage)	
2002	2007

Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	lisation	ralisation	Difference
A	32%	32%	0%	75,2%	69,0%	6,2%
B	37%	29%	8%	76,8%	73,2%	3,6%
C	21%	14%	7%	46,3%	41,8%	4,5%
Total	26%	21%	5%	57,6%	52,7%	4,9%

Revenues(Million of ECU)						
Year 2002				Year 2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	Lisation	ralisation	Difference
A	1,634	1,632	2	1,983	2,085	-102
B	717	678	39	893	910	-17
C	4,449	4,255	194	5,184	5,310	-126
Total	6,800	6,565	235	8,060	8,305	-245

Revenues (Percentage)						
2002				2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	Lisation	ralisation	Difference
A	32%	31%	1%	59,8%	68,0%	-8,2%
B	38%	31%	7%	72,4%	75,7%	-3,3%
C	21%	16%	5%	40,8%	44,2%	-3,4%
Total	25%	21%	4%	48,1%	52,6%	-4,5%

V.5.2. Evolution of the market share

It has been assumed that the market share in each country would change very little in a situation where the same regulatory framework status quo is maintained. Therefore, no changes in the market share have been considered over the defined 5 and 10 year periods.

We present below the results of scenario 1 for the public postal operator and other potential and current operators, which is based on the assumption that their current market share would not vary significantly should the regulatory framework status quo be maintained.

Year 1997					
Volume (Million)			ECU (Million)		
Type of	Public	Private	Public	Private	

Country	Operator	Operator	Total	Operator	Operator	Total
A	4,665	142	4,807	1,215	26	1,241
B	2,270	157	2,427	499	19	518
C	11,090	642	11,732	3,469	214	3,683
Total EU	18,025	941	18,966	5,183	259	5,442

Year 2002						
Volume (Million)				ECU (Million)		
Type of	Public	Private		Public	Private	
Country	Operator	Operator	Total	Operator	Operator	Total
A	6,101	237	6,338	1,587	45	1,632
B	2,885	240	3,125	648	30	678
C	12,552	863	13,415	3,963	292	4,255
Total EU	21,538	1,340	22,878	6,198	367	6,565

Year 2007						
Volume (Million)				ECU (Million)		
Type of	Public	Private		Public	Private	
Country	Operator	Operator	Total	Operator	Operator	Total
A	7,811	313	8,124	2,026	59	2,085
B	3,872	331	4,203	869	41	910
C	15,550	1,091	16,641	4,940	370	5,310
Total EU	27,233	1,735	28,968	7,835	470	8,305

We present below the results of scenario 2 for the public postal operator and other potential and current operators based on the market share indicated in section V.4 (page V-16), for which it has been assumed that full liberalisation of the direct mail sector in the EU will be implemented as from 1 January 2003.

Year 1997						
Volume (Million)				ECU (Million)		
Type of	Public	Private		Public	Private	
Country	Operator	Operator	Total	Operator	Operator	Total
A	4,665	142	4,807	1,215	26	1,241
B	2,270	157	2,427	499	19	518
C	11,090	642	11,732	3,469	214	3,683
Total EU	18,025	941	18,966	5,183	259	5,442

	Year 2002					
	Volume (Million)			ECU (Million)		
Type of	Public	Private		Public	Private	
Country	Operator	Operator	Total	Operator	Operator	Total
A	6,110	238	6,348	1,589	45	1,634
B	3,074	260	3,334	685	32	717
C	13,249	900	14,149	4,147	302	4,449
Total EU	22,433	1,398	23,831	6,421	379	6,800

	Year 2007					
	Volume (Million)			ECU (Million)		
Type of	Public	Private		Public	Private	
Country	Operator	Operator	Total	Operator	Operator	Total
A	7,137	1,305	8,442	1,683	300	1,983
B	3,401	891	4,292	706	187	893
C	14,432	2,729	17,161	4,360	824	5,184
Total EU	24,970	4,925	29,895	6,749	1,311	8,060

In addition, we present below the results of scenario 1 and 2 for the public postal operator.

	Volume (Million)					
	2002			2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	lisation	Ralisation	Difference
A	6,110	6,101	9	7,137	7,810	-673
B	3,074	2,885	189	3,401	3,873	-472
C	13,249	12,552	697	14,432	15,550	-1,118
Total EU	22,433	21,538	895	24,970	27,233	-2,263

	Volume (Percentage of market share)					
	2002			2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	lisation	Ralisation	Difference
A	96%	96%	0%	85%	96%	-11%
B	92%	92%	0%	79%	92%	-13%

C	94%	94%	0%	84%	93%	-9%
Total	94%	94%	0%	84%	94%	-10%

Revenues (Million of ECU)						
2002				2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	lisation	ralisation	Difference
A	1,589	1,587	2	1,683	2,027	-344
B	684	648	36	706	870	-164
C	4,147	3,963	184	4,360	4,939	-579
Total EU	6,420	6,198	222	6,749	7,836	-1,087

Revenues (Percentage of market share)						
2002				2007		
Type of	Libera-	No Libe-		Libera-	No Libe-	
Country	lisation	ralisation	Difference	lisation	Ralisation	Difference
A	97%	97%	0%	85%	97%	-12%
B	95%	96%	-1%	79%	95%	-16%
C	93%	93%	0%	84%	93%	-9%
Total	94%	94%	0%	84%	94%	-11%

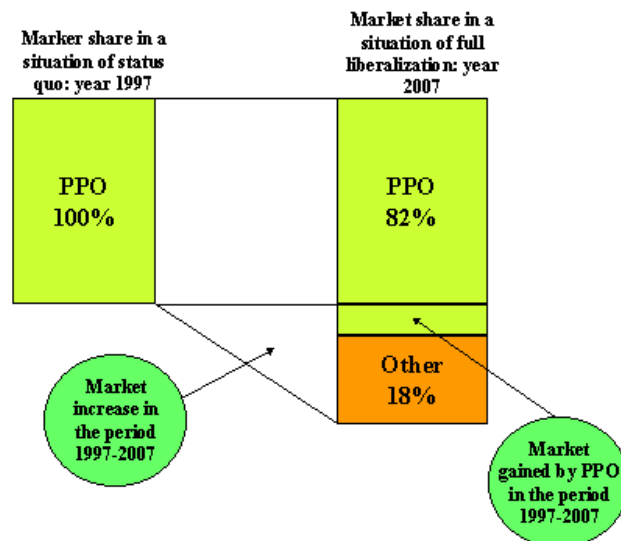
V.5.3. Conclusions

The above tables show that in those countries where direct mail is less developed (i.e. in A and B countries) the expected increases in volume and revenues are much higher, whereas in those countries where the postal infrastructure and the direct mail services are more developed (C countries) the expected increases are much lower. Increases in quality levels are higher in A and B countries, where there is considerable room for improvement and where quality is a factor of capital importance when deciding which marketing tool to use, whereas in C countries quality is no longer the most important element to be taken into account when deciding to use direct mail. Therefore, the expected improvements in quality levels in A and B countries would generate significant volumes of direct mail, and consequently, higher increases of the direct mail market.

The model predicts that in the year 2007 total direct mail volumes at EU level would be higher in a situation of full liberalisation by 4.9% than in a situation of status quo. However, total revenues would be 4.5% lower in a situation of full liberalisation than in a situation of status quo. These results are justified by the expected average decrease in

a situation of status quo. These results are justified by the expected average decrease in net prices which will be greater than the increase in volumes.

However, the expected total increase in direct mail volume and revenues in absolute terms (57.6% and 48.1%, respectively) during the period 1997-2007, assuming liberalisation is implemented from 1 January 2003, would mean that even though it is expected that by the year 2007 the market share of the public postal operators would have decreased to around 84%, such a general increase of the direct mail market would offset the financial impact of such loss of market share. The volume and revenues of the public postal operator in the year 2007 would be higher than those for the year 1997.



However, the impact of liberalisation would certainly be different in different countries, depending on the specific characteristics of their current markets and the actions to be taken by their public operators in the near future. In countries such as Austria, Greece, Ireland and Italy in which the direct mail market is not yet as developed as in other EU countries, our model predicts that full liberalisation of the direct mail market will result in a market growth from which both public and private operators would benefit significantly, despite the loss of market share of the public operators. But the impact of liberalisation would be quite different in countries such as France, the UK and even Germany (once its market were fully liberalised), since in these countries the negative impact of liberalisation on the public operator's revenues would foreseeably exceed the positive impact resulting from volume growth. Indeed, in these latter countries the expected growth in volumes and revenues would undoubtedly be higher for the public operators in a non-liberalised scenario.

Countries with the least developed market would have a slight decrease in volume and revenues in a situation of full liberalisation due to the fact that such countries expect to increase prices until the year 2002 and only decrease them once the market has been liberalised. The expected overall decrease in prices would not be as high as in other countries. Furthermore, in some cases, prices would increase. This is the case of Spain, where the public postal operator expects to increase prices in the coming year, which would consequently restrain the increase in demand. Such a situation would certainly lead operators to offer value added products in addition to the traditional delivery services to compete against new entrants. Such a situation has not been taken into consideration in our model due to the complexity and lack of data needed to study its

impact, but this possibility should certainly be taken into consideration. The decrease in revenues compared to a situation of status quo could be of significant importance in absolute terms for the major public postal operators if prices move in the expected direction. In fact, for those countries (that is, C countries) in the year 2007, the expected revenues for public postal operator in a situation of full liberalisation would be 468 million lower than in a situation of status quo.

Accordingly, we consider that in general terms full liberalisation of the direct mail market from 1 January 2003 would have positive effects for the European Union market taken as a whole, even though its size in terms of revenues would be lower than in a situation of status quo. Indeed, liberalisation would allow new companies to operate and generate wealth and offer new services to customers, and it would not necessary imply a reduction of the current volumes and revenues of the public postal operators, even though its growth would be higher if liberalisation does not occur.

V.5.4 Summary of impact of liberalisation of direct mail market on employment

The level and evolution of employment in the European public operators is a complex variable, affected by different interconnected factors, such as the evolution of the global demand of mail services (volume of items) and productivity, which depend upon factors such as technological trends in electronic substitution, the automation level and operational processes of the operators. Other factors influencing employment in the postal sector are liberalisation, which is precisely the subject of this model, and organisational change.

Indeed, the employment trends in the European postal sector have been the subject of recent studies conducted by external consultants on behalf of the European Commission and other institutions. The main conclusions highlighted in the study conducted by Price Waterhouse in May, 1998 "Employment Trends in The Postal Sector", could be summarised as follows:

1. In 1995 the number of people employed by public operators accounted for approximately 1% of total employment in the EU. Additionally, the number of people employed by private operators was estimated between 350000 and 400000 people.
2. Between 1990 and 1995 the global employment in the fifteen public operators declined by roughly 112000 employees, or just over 7%.
3. For the period 1995-2000, expected an overall reduction of 3.8% is expected in the EU postal sector, resulting from a fall of 7.7% among public operators and an increase of 10% among private operators. The decrease in public operator's employment would mainly affect those that have already experienced the most marked employment reductions between 1990 and 1995. These reductions would be mainly due to natural wastage, early retirement schemes, functional and regional redeployment, reductions in the length of the working week hours, and other non-compulsory measures. Table V.5.4 details the actual variations experienced between 1995 and 1996, confirming in general terms these expectations.

4. For the period 2000-2005, an overall reduction of 6% is expected in the EU postal sector, resulting from a fall of 9.8% among public operators and an increase of 5% among private operators.

5. The share of total employment accounted for by full-time, part-time and temporary employees varies significantly among public operators, and this situation does not appear to have changed significantly between 1990 and 1995. Nevertheless, the above-mentioned studies foresee a trend towards increased utilisation of part-time and temporary employees among the public operators that have undergone most organisational changes and liberalisation. In this connection, the actual figures for 1996 show in Table V.5.4 below confirm that the share of total employment accounted for part-time employees has either increased (most operators, and significantly in Belgium and Spain) or remained equal (Ireland and Luxembourg), with Sweden as the only exception.

Table V.5.4 Public operators employment 1995-1996

Member State	Total Staff 1995			Total Staff 1996			Variation 1995/1996 (%)			Part-time sha	
	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time	Total	1995	1996
A - Austria	29,914	4,089	34,003	30,254	4,345	34,599	1	6	2	12	13
B - Belgium	17,531	1,517	19,048	13,496	4,364	17,860	(23)	188	(6)	8	24
D - Germany	219,000	88,000	307,000	201,000	84,000	285,000	(8)	(5)	(7)	29	29
DK - Denmark	25,030	-	25,030	25,478	-	25,478	2	-	2	-	-
E - Spain	57,894	7,246	65,140	56,652	8,203	64,855	(2)	13	0	11	13
EL - Greece	11,502	70	11,572	10,766	68	10,834	(6)	(3)	(6)	1	1
F - France	238,392	50,858	289,250	233,446	53,347	286,793	(2)	5	(1)	18	19
FIN - Finland	24,600	-	24,600	17,167	6,054	23,221	-	-	(6)	0	26
I - Italy	190,404	12,722	203,126	181,379	n.a.	181,379	(5)			6	
IRL - Ireland	7,431	631	8,062	7,437	626	8,063	0	(1)	0	8	8
L - Luxembourg	1,231	466	1,697	1,232	466	1,698	0	0	0	27	27
NL - Netherlands	55,263	-	55,263	27,108	27,319	54,427			(2)	0	50
P - Portugal	15,527	-	15,527	15,803	238	16,041	2		3	0	1
S - Sweden	40,112	15,602	55,714	39,245	7,344	46,589	(2)	(53)	(16)	28	16
UK - United Kingdom	173,292	35,518	208,810	171,943	37,136	209,079	(1)	5	0	17	18

Source: Universal Postal Union, 1996 and study on "Employment trends in the E.U. postal sector" issued by the consultant firm Price Waterhouse on May 1997 on behalf of the E.U. Commission.

6. Both public and private operators expect an increase in flexibility to adapt their workforce to demand fluctuations with respect to hours, weekends and seasons.

In order to incorporate in our model the impact of the liberalisation of direct mail on employment, we have taken into account the conclusions of the study prepared by Price Waterhouse, which provides an overview of the developments in the level and structure

of employment in the EU postal sector over the 1990-1995 period , and the changes postal operators may expect up to the year 2005.

In 1995 total employment in the postal sector amounted to roughly 1.79 million, of which 0.79% and 0.21% were employed by public and private postal operators, respectively. The majority of EU postal sector employees (73.6%) were engaged in the provision of mail services in 1995.

The Postal Employment study mentioned above foresees a further gradual reduction in employment levels in comparison with 1995 of 3.8% up until 2000, resulting from a 7.7% fall among public operators and a 10% increase among private operators. It also expects a 6% reduction over the 2000-2005 period, resulting from a 9.8% fall among public operators and a 5% increase among private operators.

Therefore, in the year 2005 total employment among the public operators would be about 16.8% less than it was in 1995. However, this downward trend should be corrected for the purpose of our study since our model predicts that direct mail demand will grow at a significantly faster pace than average mail demand.

Indeed, since it is estimated that employment and mail volume are positively related, with a 0.87 correlation coefficient in a broad sample of public postal operators, and demand is also deemed to be the main change driver of employment among private

operators, we do not expect that full liberalisation of direct mail would have a strong negative impact on postal employment in the EU. Moreover, full liberalisation could also contribute to limiting the negative impact on employment attributed to other change drivers.

Full liberalisation of direct mail would tend to reduce employment in the public operators in the short term, as it would put pressure on them to become more competitive, thus triggering process re-engineering, automation and cost-cutting programs to improve efficiency. However, full liberalisation of direct mail would also lead to new entrants in the market, which will employ postal workers, thus resulting in a positive effect on employment.

In the longer term, full liberalisation of direct mail could have a positive effect on employment if it were to enable public operators to improve their competitiveness, thus limiting market share losses due to new entrants and from competition from other direct marketing techniques.

Nevertheless, public and private operators do not share the likely impact of full liberalisation of direct mail on demand and market share and therefore on employment.

The table below shows the number of responses for the different expectations .

Impact	Public Operators	Private Operators

Increase 10%-20%	0	2
Increase 0-10%	1	3
No change	2	0
Decrease 0-10%	4	1
Decrease 10%-20%	1	0

Source: Arthur Andersen Survey, 1998

These results are in line with the study on employment mentioned above, which showed that nine public operators out of 13 were expecting liberalisation to lead to a reduction in employment, but only three of them were expecting a significant reduction. Liberalisation in this segment of the market is expected to force public operators to reduce their prices in these products in order to maintain market share, thus increasing the need to improve productivity which may in turn lead to reductions in employment. Finally, further liberalisation of direct mail will only have a significant impact on employment in countries where direct mail has not been liberalised.

It is also clear from the research that private operators see direct mail liberalisation as an opportunity for them to create employment in the sector thanks to their contribution to boosting the present volumes of direct mail.

After weighing up these arguments, we conclude that full liberalisation of direct mail would not have a significant negative impact on the total number of employees in the postal sector in the EU, whereas other factors, such as automation and competition from other means of communication, will have an impact on employment even if further liberalisation does not take place.

However, the likely effects on employment of the liberalisation of direct mail would vary significantly between those countries which have already implemented liberalisation measures beyond the price and weight thresholds established in the Directive, such as Germany, Spain or the Netherlands, and those which will keep the reserved area up to those limits. Indeed, experts tend to agree that the effects on employment in the last group of public operators as a consequence of the Directive will be very limited, since postal items weighing more than 350 grams represent a small fraction of total mail volume. However, the implementation of full liberalisation of direct mail and price and weight limits from 1 January 2003 will likely have most impact in the employment of public operators if direct mail remains reserved until that date. Thus, although direct mail constitutes approximately 19% of total mail volume (see Table IV.5.2), liberalisation of this segment will have direct impact in employment in Belgium, Denmark, France, Greece, Ireland, Italy, Portugal and the United Kingdom.

