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GREEN PAPER
ON THE DEVELOPMENT OF THE SINGLE MARKET FOR POSTAL SERVICES

ANNEXES

(Communication from the Commission)

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ANNEXES

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ANNEX 1: OVERVIEW OF POSTAL SERVICES

1. INTRODUCTION

Postal services comprise both mail services (provided by both postal administrations and private operators) and postal financial services (provided by postal administrations). In terms of turnover, mail services generate 78% of the postal sector's revenue, and postal financial services 22% (the latter including transaction revenue from mail facilitating and certain miscellaneous services). For postal administrations alone, the proportions of revenue between mail services and postal financial services is 67:33.

The Green Paper concentrates on mail services. Postal financial services should be viewed more in the context of the financial sector overall. In addition, the regulatory issues are more complicated for mail. However, this annex seeks to give a broad perspective of both types of postal service. It also seeks to give an overview of related services.

2. MAIL SERVICES

2.1 DEFINITIONS

There are three categories of mail service - letters, parcels and express. There are several overlaps between these services.

Letters can be distinguished from parcels sometimes by weight (with a somewhat artificial distinction between the two being set sometimes at 2 kilos), or sometimes by contents (the distinction being that letters carry communications and parcels goods). Express services include both express letters (documents) and express parcels (packages). They are distinguished from ordinary letter and parcel services primarily by the speed or the perceived reliability of their services.

2.2 SERVICE PROVIDERS

LETTERS

For letters, postal administrations have an almost complete monopoly. As discussed in the main text, there are some competing letter services provided by private operators, whether legally or not. These include city mailers, document exchanges and remailing - see below at Paragraph 2.5.

For letter mail services offered by postal administrations, all administrations categorise their mail into two operational "tiers". In nine Member States the two categories are letters and postcards (often referred to as LC - "Lettres et Cartes" in French) on the one hand and printed papers and small packets (often referred to as AO - "Autres Objets" in French) on the other. Three postal administrations - those of Denmark, Portugal and the United Kingdom - categorise their mail according to speed, divided into first class and second class (or priority and non-priority). The latter distinction more closely reflects operational costs and, it could be argued, consumer preferences.

Most postal administrations make available contract facilities which permit larger customers to undertake part of the mail process. (The main examples of such activities would be pre-sorting - undertaking part of the sorting process before posting - and enveloping.) Certain administrations also permit third party operators to carry out such activities on behalf of the customers who originate the mail. In addition, particularly in the case of the direct mail, the physical generation of mail can be undertaken by specialist operators.

PARCELS

Parcel services usually refer to the movement of individual goods items up to a limit of, say, 30 kilos. However, parcel carriers including some postal administrations, now also move much larger consignments, usually packed on palettes. Parcel carriers normally offer customers a choice of speeds for the delivery of parcels.

Parcels services operate in free competition. With the exception of two administrations, the postal administrations of all Member States compete in the parcel markets of their countries.

EXPRESS

Concerning express services, the norm is that they are offered in free competition. (Only in three Member States do postal administrations still have a monopoly over such services.) There is a tendency for express organisations to concentrate either on regional, national or cross-border services. There is also some specialisation between the express movement of documents (postal communications sent by express means) and "non-documents" (goods-bearing express parcels).

2.3 APPLICATIONS

Letters and express provide communication services. (Alternative means are therefore telephones, fax and EDI, all of which provide indirect competition to postal services.) Parcels and express provide goods-delivering services (other types of delivery service providing alternatives).

Beyond this general statement, two particular applications are worth mentioning here. Mail order (for selling of material to customers by post) use parcel services for the distribution of the goods. Advertisers use letter services to send direct mail.

2.4 SUBSIDIARY LETTER SERVICES

While all services tend to have the flexibility to be "tailored" to the requirements of large customers, the letter services provided by the postal administrations include some specific variants, certain of which have particular legal importance. Perhaps the most significant are as follows:

- registered letters;
- recorded letters;
- certificate of posting / advice of delivery ;

- special delivery (where, for a supplement, the speed is normally better than the standard letter service);

- direct bags (sometimes called the M-bag service), used for sending a bag containing a quantity of printed papers to a particular destination;

- post office box (where a customer can hire a box at a post office to which his mail is delivered);

- poste restante (where for a temporary period mail is held at a post office pending collection by the nominated individual).

2.5 OTHER MAIL SERVICES

Some other services are beginning to evolve. Generally, new services are provided in free competition. The juridical position of certain of the services mentioned - notably remail - is the subject of debate. Other services - such as city mail - appear to be illegal (except, in that case, in Spain), but continue to operate.

POSTAL ELECTRONIC MAIL

Described further at Annex 12, a "hybrid" service that provides tele-transmission of a message, distance printing and then postal delivery. Postal administrations also provide a public fax service called Bureaufax. Some also now provide a service based on EDI.

DOCUMENT EXCHANGES

Post office box-type facility permitting exchange users to deliver mail directly into the boxes of other users, and to collect their own mail similarly posted by other users. In at least the United Kingdom, it is permissible for different exchanges to transfer mail between each other.

REMAIL

Cross-border letter mail service. Provided by private operators, usually in cooperation with at least one postal administration.

HAND DELIVERY

Delivery of urgent publications by private operators, usually in city centres.

CITY MAIL

Delivery of letters in the city/town in which they were collected. (Legally permitted in Spain.)

UNADDRESSED DIRECT MAIL

Delivery of unaddressed advertising material to targeted areas. (By comparison, addressed direct mail is delivered to the targeted individual or organisation.)

2.6 OPERATIONS

The operations underlying these services are described in detail at Annex 3. Here, it is important to note that the items sent in each of the three service categories are not homogeneous. For example, letters can vary between ordinary items of C5 size, through items of A4 size (sometimes called "flats"), through to packets weighing up to 2 kg or even books weighing up to 5 kg.

Parcels services cover the range in weight from the very light-weight (half kg) up to palletised consignments. Express services cover this range as well, but have the additional complication of often needing to separate between documents (express letters) and goods (express parcels).

This lack of homogeneity of items processed makes the operations underlying mail services more complex than might be supposed (see Annex 3 for a more detailed description of the operation).

2.7 SUMMARY

The majority of mail is generated by organisations. In terms of applications (that is, the market segments that use mail services), the following are the main segments (listed in order of revenue generated): mail order, advertising, publishing, financial services, industry and public administration.

Table 1 below indicates approximately the revenue generated in the different mail services categories (shown in percentages of the total mail services turnover):

Table 1: *Mail services - revenue percentages by segment and operator (1988)*

SERVICE CATEGORIES	POSTAL ADMINISTRATIONS	PRIVATE OPERATORS	TOTAL
Letters	45.7	2.2	47.9
Parcels	6.5	10.9	17.4
Express	4.3	30.4	34.7
Total	56.5	43.5	100.0

Source: CEC (from several sources)

The main mail services are summarised in Table 2. Concerning letter services, it should be mentioned that the distinction between LC and AO services can sometimes be blurred. Further, it should not be thought that each of the services mentioned is homogeneous in itself. Annex 3 describes in detail the operational differences between different sorts of mail which may be posted in one mail service "stream".

Table 2: *Summary of mail services*

A. LETTERS

A.1 STANDARD LETTER SERVICES (offered by postal administrations)

* "Higher streams"
  - either "lettres et cartes" (LC), covering letters and post-cards;
  - or "first class", covering items for next working day delivery.
* "Lower streams"
  - either "autres objets" (AO), covering printed papers and small packets;
  - or "second class", covering items for slower delivery (with targets of either two or three working days after collection).

Standard letter services are offered for both domestic and cross-border services. For cross-border services, the service differentiation is usually LC/AO, in accordance with Universal Postal Union (UPU) guidelines.

A.2 SUBSIDIARY LETTER SERVICES (offered by postal administrations)

Services include:

* registered letters;
* recorded letters;
* certificate of posting/advice of delivery;
* special delivery;
* direct bags (also called "M-bags");
* post office boxes;
* poste restante.

A.3 NEW LETTER SERVICES

New (or newer) services include:

* postal electronic mail (including Bureaufax);
* document exchanges;
* remail;
* "hand delivery";
* "city mail";
* unaddressed direct mail.

B. PARCELS

* Normally up to 30 kg per item, but services for heavier items now common
* Usually offering choice of service speeds

C. EXPRESS

* Often divided into:
  - documents (postal communications sent by express);
  - non-documents (goods-bearing express parcels)

3. FINANCIAL SERVICES PROVIDED BY POSTAL ADMINISTRATIONS

Financial services can be split into two main categories: postal financial services (such as mail orders, postal cheques, etc.) and other financial products (like those related to savings bank operations and those known as "giro").

Postal administrations have traditionally played the role of providing readily available financial services, both within individual Member States and internationally. The more traditional services in this area include money and postal orders, postal cheques and savings bank operations. The full list of financial services provided by postal administrations is shown at Table 3 below.

The revenues coming from these help the administrations to balance their operating figures.

The extent to which the services are used varies from Member State to Member State and is influenced by such factors as:

- the spread of commercial banking facilities, mainly in remote areas, and their inter-operability;

- public attitudes to the use of banks and their facilities, which themselves tend to reflect the type of community and its banking system development;

- government regulations either promoting or limiting giro and savings bank development.

Nevertheless, in the Community the situation is not uniform. In some Member States national girobanks provide full banking services in line with the commercial banks, whereas in other Member States giro activity is limited to postal cheque services and in at least one country even this last activity is not authorised.

In almost all administrations the wide spread of postal counter facilities has resulted in their being used for government services, often providing for such facilities as the payment of pensions, welfare services, licence and taxation payments and payments for utilities such as water and telephones.

When such arrangements are in force, they are generally provided free of charge to the government, but there is an argument for introducing some charges based on the cost of providing the services.

Table 3: *Summary of financial services provided by postal administrations*

A. POSTAL FINANCIAL SERVICES

A.1 POSTAL PAYMENT MEANS

* Money Orders, International Money Orders
* Postal Orders
* Postal Cheques
* "Valeurs declarées"

B. GENERAL FINANCIAL SERVICES

B.1 GIROBANK OPERATIONS

* Tele-payment
  - credit cards
  - ATM Girobank cards
* Interior accounts/deposits/pay-out
* Foreign currency
* Mortgage

B.2 SAVINGS BANK OPERATIONS

* Home-savings investment
* Common funds investment

B.3 OTHER PAYMENTS

* Pensions
* Welfare services
* Licence/Taxation
* Public payments

4. MAIL FACILITATING SERVICES

For postal administrations' mail services, the most important services provided at the post office counters relate to the selling of stamps and the provision of information relating to use of mail services. With the exception of Belgium and Portugal, all postal administrations now permit stamps to be sold in other as well as post office counters.

Post office counters can also be used to give credit for postage "meter" machines, and then accept postings paid for with "meter" impressions. There are also other more specialist services available, such as the sale of philatelic products, or containers in which to post items.

As with postal administrations, the great majority of private operators' volume comes from larger customers, whose postal items are collected directly from their premises. Increasingly, however, private operators are establishing facilities which enable smaller customers (or even individuals) to use their services. Several private

operators now have franchised offices which accept smaller postings; in addition investment is being made in "lodging points" established for the same purpose.

Table 4 below gives a summary of the mail facilitating services.

Table 4: *Summary of mail facilitating services*

POSTAL ADMINISTRATIONS	PRIVATE OPERATORS
- Stamp sales - Meter credits - Philatelic products - Container sales - Franchised access points (IRL and UK)	- Franchised access points - Lodging points

5. OTHER TRANSPORT SERVICES

Most private operators who provide postal services have transport services as their main business. The parcel services that they provide are usually part of their general transport operation (although they may be processed through separate networks). If they offer express services, these are generally provided entirely separately.

While private operators have extended down to smaller consignments, some postal administrations have started to move into the general transport market. Thus, several now accept items well beyond the "traditional" weight maximum for parcels of 30 kilos. Sometimes, such large consignment services are provided through the ordinary parcel network, but usually through separate networks.

Parcel/express operators are now increasingly offering warehousing facilities to aid the "just-in-time" strategies of their customers. They are therefore becoming increasingly involved in controlling stock on behalf of customers, and even carrying out simple assembly operations.

Table 5 below summarises these other transport services relevant to the postal sector.

Table 5: *Transport and other services*

TRANSPORT AND DELIVERY	ASSOCIATED ACTIVITIES
- General transport - Freight forwarding - Specialist delivery services	- Warehousing - Stock control - Just-in-time services

6. MISCELLANEOUS - POSTAL ADMINISTRATIONS

The post office counters network is now being used increasingly for selling services beyond the traditional government services and mail facilitating services. They are now selling services on behalf of a range of public sector institutions and utilities. To give an impression of the breadth of this range, these may include bus, train or airline

tickets (or passes), phonecards, fishing licences and Red Cross bonds, as well as lottery tickets. Some are also now selling financial services other than banking - insurance presently being the main example.

The range of services sold is crucially affected by the legislation affecting each postal administration. Table 6 below summarises the miscellaneous services sold at the counters of at least some postal administrations.

Table 6: *Summary of miscellaneous services sold at post office counters*

TICKETS	INSURANCE
- Transport tickets/passes - Non-governmental licences - Phonecards - Lottery tickets	- Insurance services

ANNEX 2: THE POSTAL SECTOR IN STATISTICS

1. INTRODUCTION

This annex is intended to provide an introduction in figures to the Community' postal sector. Following an over-view of the sector as a whole, it then puts the sector in the context of the Community's overall economy. Next, it examines in more detail the mail services, and then the postal financial services. (Unless otherwise stated, the figures are those of 1988, in order to ensure comparability of information.)

2. OVERALL FIGURES

Table 1 below gives the main figures for the postal sector. The revenue and employment figures relate to the whole sector, while the volume figures relate to mail services only.

Table 1: *Community's postal sector - summary in figures*

VOLUME			
Items per year			78 billion
Items per working day			290 million
Items per inhabitant/year			244
Rate: Domestic/Community/International			93% / 4% / 3%
REVENUE			
Mails services			
- Postal administrations		ECU 26 bn	
- Private operators		ECU 20 bn	
Postal financial services			
- Postal administrations		ECU 13 bn	

TOTAL			ECU 59 billion
EMPLOYMENT			
Postal administrations			
- Mail services	1,207,000		
- Financial services	153,000		
		1,360,000	
Private operators		350,000	

TOTAL			1,710,000

Source: Sofres study

3. ECONOMIC IMPORTANCE

The postal services provided by the public and private operators generate a total revenue of ECU 59 billion, the equivalent of 1.46% of the Community's GDP. (This figure excludes directly associated industries - such as those of direct mail and mail order - which generate another 0.5% of the Community's GDP.) Of this, mail services generated ECU 46 billion, and postal financial services ECU 13 billion.

However, about half the postal administrations operate at a loss. As well as showing the economic importance of postal services to the different national economies, Table 2 below also shows the external funding that is needed to make up these losses. The profitable postal administrations together earned surpluses of ECU 748 million, while the loss-making administrations recorded a combined loss of ECU 2,699 million. The combined effect was a net loss of ECU 1,951 million.

Table 2: *Importance of postal services to overall economy (1988)*

MEMBER STATES	GROSS DOMESTIC PRODUCT ECU billions	TOTAL TURNOVER ECU millions	IMPORTANCE TO GDP %	SURPLUS/ DEFICIT ECU millions	CONTRIBUTION TO GDP %
Belgium	124.8	773.4	0.62	- 272.3	- 0.21
Denmark	91.3	1,156.4	1.27	+ 44.0	+ 0.05
Germany	1,020.1	9,180.0	0.90	- 1,210.0	- 0.12
Greece	44.7	136.0	0.30	- 17.5	- 0.04
Spain	284.8	1180.3	0.41	- 119.7	- 0.04
France	795.0	12,366.0	1.56	+ 147.0	+ 0.02
Ireland	26.5	246.7	0.93	+ 1.7	+ 0.01
Italy	689.7	4,087.1	0.59	- 1,044.4	- 0.15
Luxembourg	5.6	52.7	0.94	- 0.3	- 0.01
Netherlands	189.1	3098.0	1.64	+ 297.0	+ 0.16
Portugal	34.7	154.9	0.45	- 34.8	- 0.10
United Kingdom	670.8	6,426.0	0.96	+ 258.0	+ 0.04
EC	3,978.1	38,857.5	0.98	- 1,950.9	- 0.05

Notes: The table above excludes the turnover generated by private operators. This is estimated to be some ECU 20 billion per year. Added to the ECU 39 billion generated by the postal administrations, the total turnover would be ECU 59 billion - or 1.46% of EC GDP.

The figures include revenue of ECU 13 billion generated by postal administrations' financial services.

The turnover figures for Belgium exclude ECU 321 million paid by the Belgian government to the postal administration to compensate it for losses incurred on certain services which the government required it to provide.

The figure for Denmark is before allowance for a special tax of ECU 86 million.

Source: CEC analysis

The figures shown in Table 2 need to be set in the context of a comparison with the two largest postal administrations outside the Community (those of Japan and the United States) and with the largest private operators. Table 3 below seeks to give this comparison. (It should be noted that the figures given for the revenue generated by the private operators in the Community market are estimates only; figures for the postal administrations include revenue from financial services.)

Table 3: *Revenue of largest private operators and non-Community postal administrations (1988)*

CATEGORY	COUNTRY/ COMPANY	REVENUE GENERATED (ECU BILLION)		
		IN COMMUNITY	OUTSIDE COMMUNITY	TOTAL WORLDWIDE
Postal Administrations	Japan	N/a	9.5	9.5
	United States	N/a	30.0	30.0
Private Operators	DHL	0.5	1.5	2.0
	Federal Express	1.5	5.5	7.0
	TNT	1.0	2.0	3.0
	UPS	4.0	8.0	12.0

N/a Not applicable

Source: Several

4. MAIL SERVICES

Mail services are provided both by postal administrations and by private operators. All the ECU 20 billion revenue of private operators is generated by non-reserved services. Of their revenue, postal administrations earn some ECU 21 billion from letter services, the majority being reserved.

PUBLIC AND PRIVATE OPERATORS

Table 4 shows how the mails market is divided up between postal administrations (the public postal operators) and private operators. It also indicates how postal administrations, by generating most of their revenue from ordinary letters, have relatively high throughputs per employee (compared to private operators) but relatively low revenue. The experience of private operators, who generate almost all their revenue in the express and parcels segments, is the converse. As the table indicates, private operators hold an estimated 43% of the total postal market. In the parcel and express segments, their share is much larger - an estimated 63% and 87% respectively.

Table 4: *Mail services - comparison of postal administrations and private operators*

OPERATORS	PERCENTAGE DISTRIBUTION			PER MAILS EMPLOYEE	
	VOLUME	REVENUE	STAFF	ITEMS (thousands)	REVENUE (ECU)
Postal Administrations	96%	57%	78%	62.0	21,500
Private Operators	4%	43%	22%	8.9	57,150

Source: CEC analysis

UNIVERSAL SERVICE

Postal administrations have a universal service obligation. (In all Member States, they have been granted some special and exclusive rights with the intention that they should be able to meet this obligation.) Universal service refers to the access by which every citizen or organisation may post items into the public postal service; it also refers to the ability of the postal service to gain access to all addresses in the Community in order to deliver postal items. Table 5 below seeks to give an impression of the implications of this obligation.

Table 5: *Universal service - collections and deliveries*

CRITERION	TOTAL	INHABITANTS PER UNIT (Note 1)
Post office counters	92,772	3,490
Collections points (public)	163,000	1,700 (Note 2)
Delivery rounds	318,000	1,010

Note 1: The total population of the Community divided by the numbers of units mentioned (counters, collection points and delivery rounds).

Note 2: The number of public collection points includes the posting boxes available in post office counters.

Source: Postal administrations

Population density and concentration is also important in terms of the universal service obligation. The Community's average density is 143 inhabitants per square kilometre, the range for individual Member States going from 50 to 350 inhabitants per square kilometre.

MAIL USAGE

80% of letters posted originate from businesses and other organisations (the percentage being even higher for express and parcels services). It is therefore not surprising that there appears to be a link between the number of letters per inhabitant and GDP per capita. Table 6 compares the statistical order for these two criteria. (The same point is made graphically - using the same data - at Chapter 4, Paragraph 3.2 of the main text.)

Table 6: *Comparison of letter mail usage and GDP per capita*

MEMBER STATE	ITEMS PER CAPITA	STATISTICAL ORDER	GDP PER CAPITA (Note 1)	STATISTICAL ORDER
Belgium	335	4	102	6
Denmark	434	1	134	1
Germany	248	6	128	2
Greece	47	12	38	11
Spain	130	10	67	9
France	332	5	112	4
Ireland	148	9	64	10
Italy	196	8	106	5
Luxembourg	346	3	120	3
Netherlands	409	2	100	7
Portugal	68	11	33	12
United Kingdom	256	7	95	8

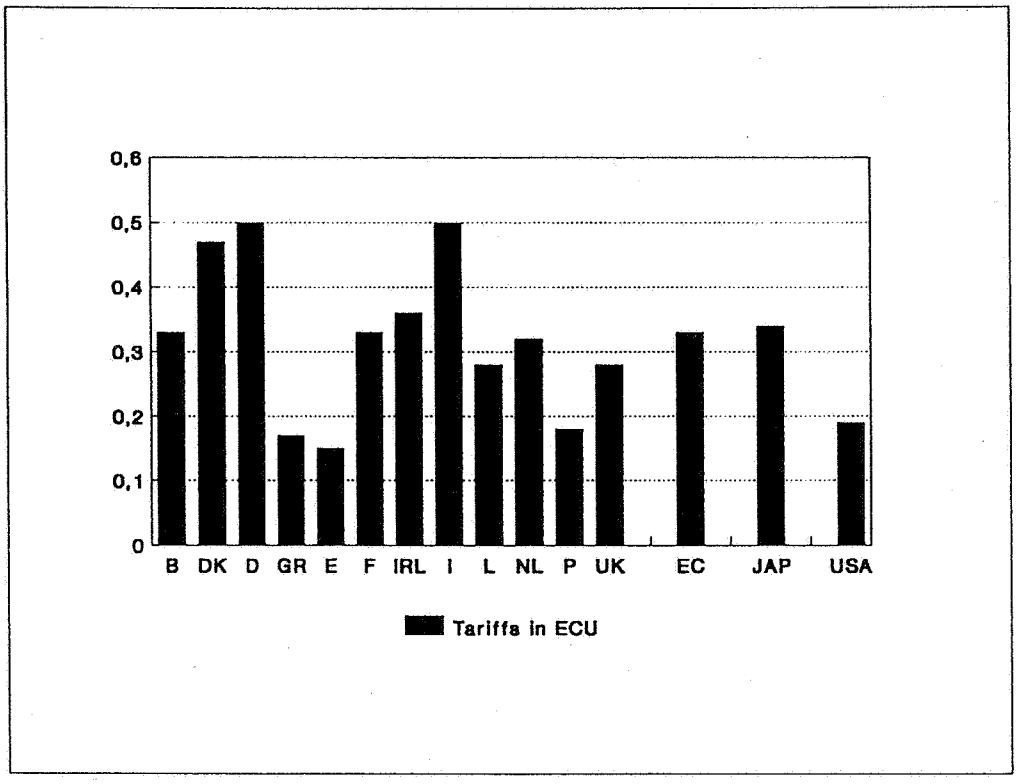
Note 1: This column shows the indexation with the EC average GDP per capita equalling 100.

Source: CEC analysis

TARIFFS

As well as general economic activity, two other important factors affecting levels of use are quality of service and prices. Figure 1 shows the basic domestic letter tariffs (for 1990) offered by the Community's postal administrations. For some administrations, this is the basic price for their main letter services (but with discounts usually being available for larger users). Other administrations, however, offer substantial discounts if the contents are printed papers (including newspapers).

Figure 1: *Comparison of basic letter tariffs (1990)*



Source: Postal administrations

NATIONAL AND CROSS-BORDER MARKETS

For all mail services, domestic markets are far larger than cross-border markets. Table 5 below shows how letter volumes are composed in the different Member States. (A distinction is made for cross-border mail between , on the one hand, mail going from one Member State to another and, on the other, mail going to or coming from outside the Community.) For reasons of commercial confidentiality, similarly detailed information is not available for parcels and express services.

Table 7 shows that 7% of letter mail is cross-border traffic, 4% being "intra-Community" and 3% being "extra-Community" mail. In revenue terms, the cross-border share is slightly higher - about 10% of letter revenue. For parcel and express services, the cross-border mail is worth about 11% of revenue.

Table 7: *Traffic composition between domestic and cross-border*

MEMBER STATE	DOMESTIC	INTRA-COMMUNITY	EXTRA-COMMUNITY
Belgium	86.0%	8.4%	5.6%
Denmark	95.8%	2.3%	1.9%
Germany	96.2%	1.9%	1.9%
Greece	74.0%	14.4%	11.6%
Spain	88.4%	6.7%	4.9%
France	95.3%	2.6%	2.1%
Ireland	69.9%	24.9%	5.2%
Italy	92.8%	4.6%	2.6%
Luxembourg	53.2%	35.2%	11.6%
Netherlands	90.4%	7.6%	2.0%
Portugal	86.7%	8.1%	5.3%
United Kingdom	92.0%	2.8%	5.2%
Average (weighted)	93%	4%	3%

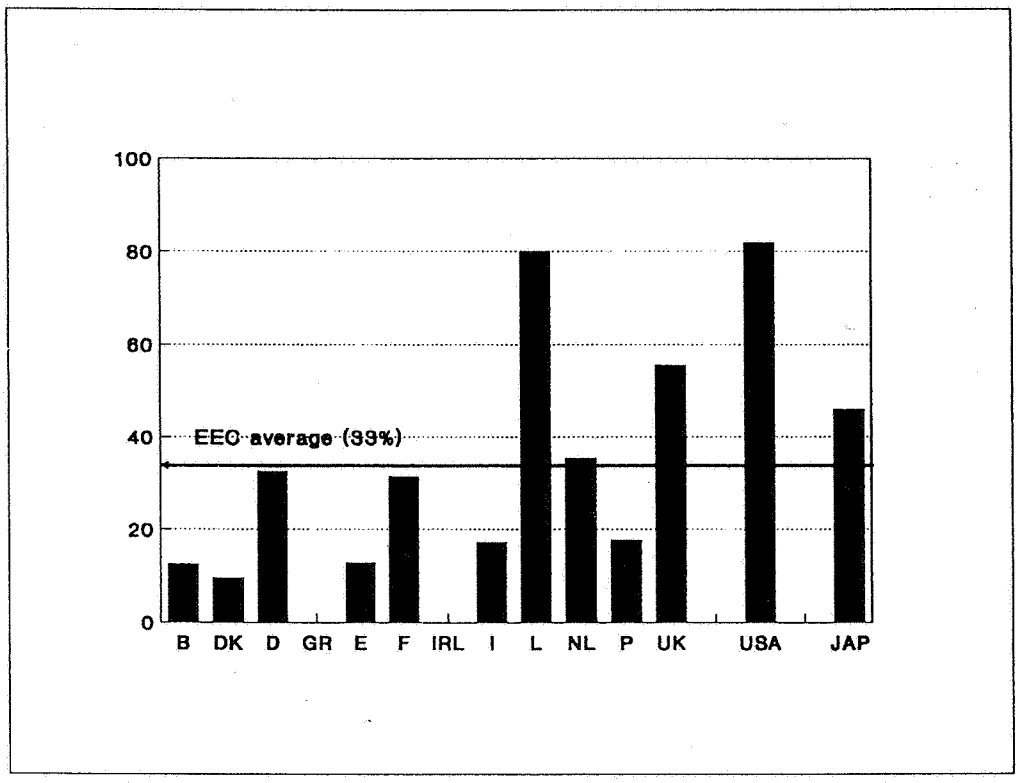
Source: Sofres study

SORTING MECHANISATION

Many postal operators have made significant investments in sorting machinery. Parcel and express operators have specialised sorting equipment which is increasingly linked to bar-coding systems. These bar-codes may also be used for "tracking-and-tracing" systems for following the progress of individual items through the whole process.

Postal administrations have made substantial investments in letter sorting equipment (see Annex 11, Paragraph 5). This equipment is presently heavily reliant on sorting by the post-code. (The subject of post-codes is discussed in detail in Annex 10.) Figure 2 below shows the percentage of letter mail that is automatically sorted by the different postal administrations of the Community. (The figures exclude mail that has been pre-sorted by customers before posting.)

Figure 2: *Percentage of letter mail sorted mechanically*



Source: Ernst and Young study

5. POSTAL FINANCIAL SERVICES *(INCLUDING SALE OF MAIL SERVICES AT COUNTERS)*

The Green Paper concentrates on mail services. However, it is important to be aware of the importance of the financial services provided by postal administrations. The size of the postal financial services segment (proportionate to the postal administration's total revenue) varies significantly between Member States.

There appear to be two reasons for this. Firstly, some postal administrations have a postbank as an integral part of their operation (others may not have had one, while some other administrations have sold off their respective postbanks). Secondly, while general economic activity is important, so too is the flexibility permitted to postal administrations in the enabling legislation for their postal financial services. The financial or other services which postal administrations are permitted to sell at their counters varies between Member States.

REVENUE

Postal financial services generate revenue of ECU 12.7 billion. This equates to 21% of the total revenue of the sector, and to 33% of the revenue of the postal administrations. Table 8 shows the revenue of different administrations, as well as the rate of growth.

Table 8: *Revenue and growth of postal financial services*

MEMBER STATES	TOTAL REVENUE (ECU millions)	REVENUE TREND	SAVINGS AND INVESTMENTS (ECU millions)
Belgium	270	- 4.5%	2
Denmark	350	+ 8.0%	2,400
Germany	2,180	+ 8.0%	18,500
Greece	36	N/a	4
Spain	488	+ 20.0%	3,280
France	5,026	- 0.3%	45,500
Ireland	59	+ 5.0%	945
Italy	1,436	+ 4.2%	9,000
Luxembourg	10	+ 18.0%	370
Netherlands	1,320	+ 12.6%	11,500
Portugal	20	+ 21.0%	16
United Kingdom	1,783	+ 6.0%	13,400
EC Total	12,728	.	104,917

Source: Sofres study

RANGE OF SERVICES

The financial services undertaken cover a very broad range. They include paying out pensions and other benefits on behalf of the government. They also collect revenue for different government institutions. Increasingly, where the enabling legislation permits, other services such as insurance are now sold.

To pick out two important examples of services available, they include cheque payments and money orders. Access to accounts is also made easier through the increasing availability of Automatic Teller Machine (ATM) cards issued by postal administrations. The volumes and (for cheques and money orders, the revenue throughput), are shown in Table 9 below.

Table 9: *Financial services - some volumes and turnovers*

MEMBER STATES	ATM CARDS IN CIRCULATION	CHEQUES		MONEY ORDERS	
		NUMBER IN CIRCULATION (Millions)	TOTAL VALUE (ECU millions)	NUMBER IN CIRCULATION (Millions)	TOTAL VALUE (ECU millions)
Belgium	110	5,500.0	550,000	1.2	260
Denmark	---	0.3	38	1.2	263
Germany	100	80.0	169	23.0	2,000
Greece	---	0	0	5.6	1,160
Spain	450	7.0	4,000	24.6	2,036
France	850	2,700.0	128,000	87.6	121,250
Ireland	---	0	0	0.3	7
Italy	---	0	0	24.0	2,000
Luxembourg	4	0.2	12	0.2	20
Netherlands	125	164.5	20,000	0.9	153
Portugal	---	0	15	28.8	2,500
United Kingdom	159	82.4	5,925	50.6	417
EC	1,798	3,584.7	708,159	248.0	132,066

Source: Sofres study

COUNTERS NETWORK

The sale of postal financial services is heavily reliant on the coverage of post office counters. Table 10 quantifies the coverage in the Community.

Table 10: *Coverage of post office counters*

- Post office counters	92,772
- Inhabitants per post office	3,490
- Post offices per 100 km²	4.10

Source: Sofres study

The latter two figures in Table 6 are averages. The coverage in terms of inhabitants per post office ranges in the Community from 1,700 inhabitants per post office in Ireland to 10,700 in Greece. For geographical coverage, the range is from 8.6 post offices per 100 km² in the United Kingdom to 0.7 in Greece.

As Table 11 below shows, some postal administrations have begun to invest in facilities to "automate" their counters. The intention is to broaden the scope of services that can be provided, as well as improving the quality of service to their

largest customers. At the same time, the administrations should gain the additional benefit of improving their management information.

Table 11: *Automation of post office counters (1988)*

MEMBER STATES	NUMBER OF COUNTERS	EQUIPPED WITH COUNTER AUTOMATION	EQUIPMENT RATE (%)	WITH OTHER FACILITIES	
				AUTOMATIC TELLER MACHINES	COMPUTER TERMINALS FOR MANAGEMENT
Belgium	1,850	---	---	110	---
Denmark	1,300	---	---	---	120
Germany	17,500	4,259	24.3%	100	N/a
Greece	929	---	---	---	---
Spain	12,985	---	---	450	---
France	17,000	5,265	31.0%	850	3,900
Ireland	2,075 (1)	---	---	---	---
Italy	14,373	150	1.1%	---	---
Luxembourg	106	22	20.8%	4	N/a
Netherlands	2,624	2,600	99.0%	125	---
Portugal	1,050	30	2.9%	---	30
United Kingdom	21,000 (1)	230	15.3%	159	N/a
EC	92,772	12,556	17.6%	1,798	4,050

Note 1 The number of counters shown for Ireland and the United Kingdom include sub-contracted post offices. The number of post offices wholly owned by the Irish and British postal administrations is, respectively, 124 and 1,500. The latter figure is used in the calculation of the equipment rate for the British postal administration. (The EC figure is also adjusted.)

N/a: Data not available

Source: Sofres study

ANNEX 3: MAIL OPERATIONS AND NETWORKS

1. INTRODUCTION

This annex describes in detail the letter mail operation, both domestic and cross-border. It considers what can cause cost variations between the items posted. It then reviews parcels and express operations, in order to identify structural similarities to, or differences from, the letter operation. Lastly, it discusses what networks are appropriate for mails operations.

The letter mail operation comprises five main phases: collection, sorting (divided into outward sorting and inward sorting), transport and delivery. The approximate cost breakdown is shown in Table 1.

Table 1: *Approximate composition of letter mail operational costs*

Collection		10%
Outward sorting	18%	25%
Transport	2%	
Inward sorting	5%	
Delivery		65%

Source: Average values from several postal administrations

Before describing these phases the annex first studies the work that customers can undertake before actually posting their mail.

2. PRE-POSTING

What work has been carried out on the mail before posting affects what processes are necessary after posting and before final delivery of the items posted.

At the simplest level, a customer may divide his mail between the categories determined by the postal administration (that is, letters/printed papers or first/second class). This would save on the "segregation" process described below at Paragraph 4. A customer could also ensure that all the mail was presented in the same way, thus saving on the "facing" process. If the mail was posted under contract or had been franked with the customer's meter impression, this could save the task of "cancelling" the stamps.

The most important task that the customer could carry out would be the pre-sorting of items. The level of the pre-sort will depend not only on the customer's facilities (and volumes), but also on the information that the postal administration can give to the customer on its sorting requirements. This information will depend crucially on the depth of the post-codes system (see Annex 10 for a more detailed description). Some post-coding systems enable pre-sorting only down to towns or general areas, others to individual streets or the delivery rounds (known as "walks") of the individual postman.

Allied to the latter depth of pre-sorting facility, it would be possible for customers to have the choice of posting in one location, or in several locations, with the aim of improving service.

3. COLLECTIONS

Collections are made from posting boxes in the street (sometimes called road-side collections), post office counters or other public places and from the premises of customers. In towns, the road-side collections, particularly in the afternoon, tend to be separate operations. In rural areas, they are often combined with deliveries.

All collections from post boxes and from counters are regular. Collections from customers' premises by post offices are also usually carried out on a regular basis. However, companies may have irregular requirements and may ask for "ad hoc" collections.

Collections from customer premises are also made by other operators. These operators may be offering services that compete with those of the postal administrations. Alternatively, they may be offering a service that is required before the mail is lodged with the postal administration. An example of this form of "mail preparation" is that of a "mail shop" pre-sorting mail on behalf of the originator of the mail. (However, as part of facility management, postal administrations will also offer special kinds of "mail preparation" to the customer, a facility sometimes called mail-room service".)

The collection function is vital to the overall process, but its importance is often under-stated. It accounts for about 10% of costs. These costs can be seen as "lumpy inputs", that is to say that each collection that is added or taken away has an effect on costs. However, costs do not vary according to the number of units (letters that are actually collected).

The collection function can also be under-estimated in terms of its importance for quality of service. Certain administrations experience problems with the potential irregularity of post boxes being "cleared" (that is, collected from). A problem here is that quality of service figures often measure only from the time when the sorting process starts in the sorting centre.

A letter that is delivered by the target date (measured from after the arrival of the letter at the outward sorting centre) would be considered a success even though it may have been delayed by a day if the box had not been cleared. (The only solution to this measurement problem is to have a system that measures "end-to-end".)

4. OUTWARD SORTING

Outward sorting is the process that ensures that mail collected in a sorting office's catchment area is despatched to the appropriate office either for delivery or for further sorting and then onward distribution to the delivery office.

4.1 THE BASIC PROCESSES

The treatment in the sorting centre consists of the following set of operations:

Segregating	Dividing items between letters and packets. They are also streamed (if streams are applied) - for instance into letters and printed papers, urgent and non-urgent; first and second class; machinable and non-machinable, or with a postcode and without a postcode.
Facing	Ensuring that all letters are presented in the same way (with the stamp in the top right hand corner).
Cancelling	Covering the stamp with a post office mark indicating the date and often the time. (For mail with customers' frankings, either "meter" mail or "pre-paid" mail, this operation consists of checking that all items are correctly marked.)
Sorting	Items are divided into groups according to the final delivery offices. The process is undertaken manually or by machine - see below. There are operational differences depending on the size of the items to be sorted (see Paragraph 9.3). In the case of destinations which attract little mail from the particular outward sorting centre, the mail may be sent to an intermediate office which consolidates mail for the smaller destinations in its region.
Despatching	Items are then put into containers (usually bags, but sometimes into trays) ready for conveyance.

4.2 MECHANISATION

Most of these processes can be carried out either manually or mechanically. (This is less true of the materials handling processes needed to take the mail from one process to another.) Technological changes to mechanised processing have recently concentrated mostly on the sorting process. However, it should be emphasised that a significant manual input is still needed even in processes that are described as "automated".

Mechanised sorting entails mail being presented to coding operators, who use a keyboard to enter the postcode or destination address of the item. This information is then converted ("translated") by computer into a technical code (which is in binary form) to be printed (in bars or dots) on letters, which can then be sorted automatically by machines which can "read" the binary code. (The subject of coding systems used by postal operators is discussed in more detail at Annex 10.)

Advances in Optical Character Reader (OCR) technology now make it technically feasible to have the address scanned by an electronic "eye", and to send the information to be translated into a binary code, which was formally input by the coding operator.

Different packet-sorting machines have been trialled at intervals. Some packet sorters use the "tilted-band" techniques, where packets are fed along a band at an angle. The packets are sorted by a flap opening below the band, at a point determined by the code input by the operator. Other machines use trays that tilt up at the correct point. Administrations have generally found such machines less easy to justify financially than the technology for sorting letters. In both cases, this financial viability is measured by comparison with manual productivity.

In order to help make the mechanisation more financially feasible, administrations have tended to "concentrate" into large mechanised centres the mail which would formerly have been handled in several manual centres. (As a very approximate guide, a volume of more than 10 million items per year is sometimes considered as the threshold figure required for a modern mechanised letter sorting centre.) There could be dangers from over-concentration which could already affect quality of service. However, the cost of mechanisation for smaller centres is decreasing, and there may now be a period of "de-concentration".

Of the different parts of the mail process, outward sorting is the operation with the greatest element of variable costs (the next being inward sorting). Conventionally, sorting offices have regular staffing set at a level slightly below that required for handling the volume to be processed. Surges of volume are then handled by injecting overtime. It therefore needs careful calculation to arrive at the most cost-effective mix of regular time and overtime.

Introduction of mechanisation has increased the proportion of fixed costs. The on-costs of the machines (engineering costs, electricity, etc.) are largely fixed although the staff time of the postal operators using the machines still has a high variable element, as with manual sorting. Optical Character Reader machines again have increased the fixed costs, by replacing more of the manual element by mechanical process.

5. TRANSPORT

Mail is transported by road, rail, air and sea. With increases in volume and (in some cases) increases in the real costs of using contractual transport systems, post offices have invested heavily in their own transport systems (primarily rail and road). These are "lumpy inputs" which together make a mostly fixed cost network.

Where transport is contracted out, charges tend to be entirely variable, or a fixed price with a lighter charge per unit (or per weight).

In terms of the overall analysis, the transport studied here is that between offices, and does not include the transport involved in the collection and delivery processes. In absolute money terms, the costs are very large. However, relative to the overall costs, they are less significant.

6. INWARD SORTING

The transport process brings the mail as far as the inward sorting office. This office will have its own "dependent" delivery offices to which some of the mail may be sorted (although much will simply be sent on in bags already made up by the outward sorting

office). Both the main office and the delivery offices will have their own delivery rounds (known as "walks") operating from them. The second inward sorting process is sorting between the different delivery rounds. If the inward sorting office is mechanised (and if the post code system is sufficiently "deep"), this walk-sorting process could be carried out mechanically.

Sorting offices have both outward and inward sorting functions. The description above assumes that the inward mail received was despatched from another sorting office. For local mail (mail for delivery in the same area in which it was collected), quite possibly the same office will perform both outward and inward functions (without, of course, a transport process between).

7. DELIVERY

The walk-sorting process thus brings the mail to the postman who will actually deliver the mail. The postman responsible for the delivery round then prepares the mail according to the order in which he will carry out the round. The postman then actually deliveries the mail.

For significant movements in mail, it may be possible to modify the staffing levels. However, mostly, the staffing will not change according to volume. As an indication of this, postmen would normally be expected to deliver to a certain number of houses throughout the year, and to cope with the peaks and troughs of the volume that would occur during the year. (It is assumed here that there is a minimum service requirement - that is, that a delivery should be made to any delivery point each working day when there is mail for that address.)

Deliveries are normally intended to be made on a once-a-day basis. In business districts or other areas where the volume of correspondence is especially great, however, deliveries are made two or even three times a day. However, as with collections, companies may have irregular requirements and may ask for "ad hoc" deliveries.

8. CROSS-BORDER LETTER MAIL

When letter mail is sent from one postal administration to another through the international letter mail system, the mail is said to be "exchanged". There are specialised centres that dispatch mail on behalf of one administration and receive it on behalf of another. These centres are called "offices of exchange". Postal administrations may have "outward" offices of exchange and "inward" offices of exchange (which may be in different cities). The location of offices also may vary depending on whether the mail is being sent by air or surface means.

There are relatively few such offices. For example, the German postal administration has eight offices of exchange as against fifty major sorting centres. The intention is that there should be greater control, particularly for dispatching to air-lines and for customs clearance. As well as giving some cost economies, there are also returns to scale in terms of the specialist knowledge needed.

Each office of exchange has a "catchment" area. Cross-border mail is collected, separated out (by sorting) in the sorting centre and then dispatched to the outward office of exchange. There, the full sortation is carried out, and the mail is then dispatched by the chosen means of transport. For the inward process, the mail is

cleared through customs and then dispatched by the inward office of exchange to the appropriate local sorting centres for any necessary sorting before sending on to the delivery offices.

The danger of having apparently so few offices of exchange is that they could act as bottle necks, particularly during peaks of traffic. Some limited action has been taken to alleviate this potential problem. For example, when Italy first invested in mechanisation at one of its inward offices of exchange, it wanted all inward cross-border mail due for delivery in Italy to pass through this centre. Following the resulting decline in quality, other postal administrations asked for an increase in the number of inward offices. The number was increased to four, and now to seven. For both inward and outward operations, the size of the catchment area for offices of exchange is very important for service.

9. CAUSES OF DIFFERENCES IN COSTS

There are four main causes of cost variations between the different letter items sent: the speed required, size and distance.

9.1 CONCENTRATION OF MAIL USERS

For the letter service, the different levels of concentration of mail users affect the unit costs of the two phases of the mail process that connects the public with the letter operation - that is, collections and deliveries.

Town centre posting boxes tend to be relatively close to one another and relatively heavily used. By comparison, in less urban/more rural areas, they are spread further apart, and the level of usage is relatively light (so that the number of items per box collected is much less than is the case for collections in more urban areas).

For deliveries, the key cost criterion is the distance between each delivery point. Clearly, there will be more points accessed in a delivery round in a town centre and less in rural areas.

This discussion tends to contrast the two extremes of town centres and rural areas; in reality, there is a continuum between the two. However, this contrast helps to give an impression of the different cost effects on collections and deliveries, both of which tend to be fixed cost operations. The number of units put through each of the operations will therefore affect the unit costs.

9.2 SPEED REQUIRED

Most administrations offer a letters/printed papers tiering classification. However, they still operate a system of setting priorities for handling the traffic. Priorities are more obviously set by those administrations which classify their tiers on the basis of the speed required. (Within each of these categories, speed is a relative concept. Postal administrations achieve different performances in terms of speed, and it is therefore possible that the speed required will have different cost implications for different administrations.)

Since most priority mail is collected late in the afternoon and is expected for delivery in the mid-morning, it follows that all the operations necessary for such between collection and delivery need to take place late in the evening, at night

or in the early morning. In all Member States, extra shift allowances are paid for working at night (and productivity is usually less). If there are traffic peaks, it may be possible that the capacity of any mechanisation equipment available is exceeded; the unplanned use of manual sorting as a support can be expensive.

Non-priority mail can be held over and handled in the outward office the day after collection at a time when spare capacity is available. To a certain extent, the other offices involved in the process can also use such mail as "in-fill" when their capacity allows - that is, when there is staff or machinery available and there is no priority mail to be handled.

9.3 SIZE

Operationally, letters are regarded as being in three different sizes: short letters, large letters and large "flats"/packets. Large "flats" are envelopes containing an unfolded document (or publication) of at least A4 size. A long letter is an envelope which could contain a document up to the A4 size, but folded into three. A short letter is an envelope containing up to an A4 document, but folded into half and then half again. (Naturally, market demands will affect envelope sizes used: presently, there are increasing volumes of the C5 size (approximately half the size of A4.)

The differences in sizes affects the sorting costs and, much less significantly, the cost of the delivery phase. Letters, whether short or long, can be sorted on automatic sorting machinery; flats and packets, if sorted mechanically, need separate automatic sorting machinery. If the items are sorted manually, the items are handled in different fittings, the ergonomics of which affect sorting speeds, typical standards ranging from 1200 short letters sorted per hour to 450 "flats" or packets sorted per hour.

Short letters more or less correspond to items up to 20 g. Long letters could weigh up to 80/90 g, and packets more. Flats are unusual, in that they can vary across several weight bands.

It will therefore be remarked that tariff structures based on weight, while perhaps being more convenient and understandable, are not directly related to these cost differences.

9.4 DISTANCE

As will have been seen in Table 1 above, transport costs are a small proportion of total costs. For light-weight items they are an even smaller proportion. At first sight, therefore, distance does not seem to be an important cause of variability of costs.

However, distance can cause additional complexity in routeing. For letters, approximately 22% of the volume is for local delivery, perhaps 35% for delivery to adjoining areas, and the remainder to distant areas. It therefore follows that the further away the destination of a particular item, the smaller the volume that is likely to be sent with it to the same destination. (Of course, this will vary from country to country; where countries - such as Canada - have the population concentrated in relatively few urban areas far from each other - the assumption made here may be less valid.)

The smaller the volumes going from one office to a particular destination, the greater the economic case for consolidating this volume with other volume at an intermediate office. For such mail, it is not just the sorting that would be double-handled, but also all the materials handling, including dispatching and receiving. It should be mentioned also that basic sorting processes are often required to be repeated for mail going to destinations with small volumes.

10. OTHER MAIL SERVICES

Parcels and express operations also comprise the same five phase of collection, outward sorting, transport, inward sorting and delivery. Although the cost-breakdown is similar, some possible differences should be noted.

10.1 PARCELS

Because of the greater average weight of items, parcel transport costs as a proportion of the total are likely to be higher. As with letter operations, parcels (and, indeed, express) operations range from the manual to the automated. The automated sorting technology is similar for both (and similar to the packet-sorting machinery mentioned at Paragraph 4.2 above).

10.2 EXPRESS

For express services, delivery costs are likely to be less than the percentage for letters, and collection costs proportionally more (because of the smaller volumes per collection and the greater concentration of the likely delivery points).

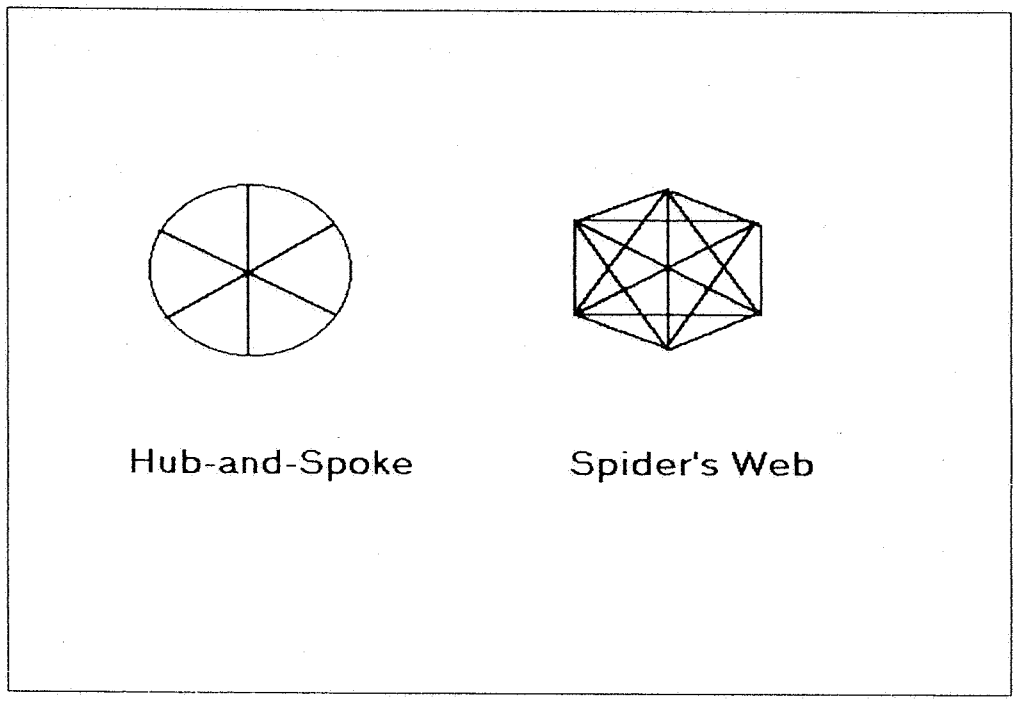
Increasingly, express operators, and also some parcel operators, are using "tracking and tracking systems". These keep an electronic record of each item from the time of receipt by the operator up to the delivery of the item to the addressee. Such systems are based on bar-code labels attached to the individual items. These labels can also be used in the sorting process.

For cross-border shipments, great emphasis is placed on the need for fast customs clearance. This would anyway be important for goods-bearing express packages or parcels (which are dutiable). It is also a source of potential competitive advantage, particularly for express documents (even though these are non-dutiable).

11. NETWORKS

The transport of a large number of items, including the delivery of each to a final destination, necessitates the use of networks. There are essentially two sorts of networks that are to be found in the postal sector. The first is called the hub-and-spoke system, and the second is sometimes called a "spider's-web" network. The two are shown below diagrammatically.

Figure 1: *Hub-and-spoke and Spider's web networks*



In these examples, there are six points that need to be connected. In the hub-and-spoke system, items from each of the points are transported into the central hub where they are sorted by destination, and then fed back along the spokes to the end points.

In the spider's-web network, there is no central hub. Rather, each point sends items directly to each other point, and receives items back for delivery.

It should be noted that, if these networks represent a sufficiently large area (such as a country or a group of countries), each point on the exterior of the networks shown will be the central point of the area it serves with its own subsidiary points; it will normally be connected to these subsidiary points by a hub-and-spoke system.

Some more detailed points need to be added to complete the description of networks.

11.1 APPLICATION OF NETWORKS

There are different criteria used for choosing between the two styles of networks. The advantage of the hub-and-spoke system is that it should make more efficient the use of transport capacity. It also permits returns to scale of the expertise of the staff of the hub - particularly important, if connecting into cross-border distribution.

Against that, there is the danger that two points that are close to each other may be connected only by two long journeys to and from the hub. There is therefore the possibility that speed of transit could suffer.

The choice is dictated by service targets, operational deadlines to meet, the efficiency of the transport system used and volumes. The sorting capacity of the hub is, of course, crucial - especially if the time potential is limited. (Indeed, if it is mechanised, the volumes gained through concentration may be needed to give an adequate return on the capital invested in the machinery.)

Most express operators operate hub-and-spoke systems. They can achieve the service targets that they set themselves, and also find that the concentration using fewer routes is more cost-effective. However, the operators with larger volumes are now starting to experiment with some direct routing where volumes permit (for instance, to take a cross-border example, Lisbon-Madrid instead of Lisbon-German hub-Madrid).

For letter operations, postal operations tend to use spider's-web type networks. Their far greater volumes tend to necessitate much later deadlines. Such deadlines make impossible the use of essential hub: only direct transport links make possible the achievement of service targets. In addition, the volumes of the letter operations between the different points enable these direct links to be cost effective.

Different parcel operators use one or other system. The lower volumes (by comparison to letter operations) enable hub-and-spoke systems to operate effectively. Perhaps more common is a spider's-web network connecting regional humps, but each regional hub being the centre for the whole of its territory on a hub-and-spoke system.

11.2 INTER-ACTION

It is important to note that the use to which networks are put demands different levels of inter-action. Each point on a spider's-web network must know the routing for all the possible destination points; if any point changes, all the other points need to adjust their operation. In a hub-and-spoke system, it is essentially the hub that makes the adjustments necessary.

An interesting contrast can be drawn with the network of post office counters and other outlets for selling postal services. In that case, if an outlet opens or closes, there will be an adjustment in customer demand between the options available. However, the other outlets themselves do not need to adjust their activities (with the exception of anticipating higher or lower demand in their particular catchment area).

11.3 HIERARCHY

It should be noted that networks are often layered upon one another in a "hierarchy". Thus, a letter addressed to a neighbouring town would probably be routed through the local sorting office. A letter going to a distant village would probably be routed via an intermediate office where it was "concentrated" with other letters for villages in the same area.

If the same letter was being sent to another country through the conventional international mail system, it would pass through an "office of exchange" (a specialised sorting office which handles out-going and in-coming cross-border mail).

Express and parcel operators tend to have similar hierarchies. In particular, cross-border items tend to pass through specialist centres. The advantages and disadvantages at the top of such hierarchies are similar to those of hub-and-spoke systems generally.

There are returns to scale on expertise and on any specialised equipment installed at the centre through which the mail is channelled, and there may be better use of transport capacity.

Against that, the journeys feeding into and out of such centres may cause the mail to be sent along very indirect routeings. Further, the fewer the number of such centres for the higher levels of the hierarchy, the greater the danger of bottle-necks, even though the higher levels tend to handle much less traffic than the lower levels of the hierarchy.

A particular example of an expertise which operators (both postal administrations and private operators) tend to concentrate is that of customs clearance. If this is undertaken effectively, it can give an operator a competitive advantage; if not, the loss of quality of service can be substantial.

ANNEX 4: SUMMARY OF LEGAL SITUATION IN MEMBER STATES

1. INTRODUCTION

This annex gives a short description of the legal situation in each of the Member States. In particular, it describes the legal status of the postal administration, as well as those items that are reserved to it. It also states the position of the regulatory bodies (where they exist). It is intended that the annex reflects the current situation (in Spring 1991).

The items that are reserved to the postal administration are also summarised in the table at Paragraph 3.

2. LEGAL SITUATION IN EACH MEMBER STATE

2.1 BELGIUM

The Belgian Post Office (de Post/la Poste) is now a public enterprise, with full administrative and financial autonomy. (However, there are certain "missions" imposed on it by the government, for which the government compensates the Post Office.) The General Manager is responsible for the global management of the post. The postal monopoly covers letter, postcard and printed paper mail up to 2 kg. Justification for the monopoly is implied in the Belgian legislation by the universal postal service being rendered in the public interest.

2.2 DENMARK

The regulatory body is the General Directorate of Post and Telecommunications. The public operator, the Danish Post Office (Post Tjenesten), forms part of the state administration. However, it enjoys relative autonomy in administrative and financial matters. The Director General has overall responsibility for the management and operation of the Post Office.

The postal monopoly covers letter and card mail up to 1 kg, and is justified on the basis of the universal service obligation of the post. The new postal law is being examined by the Commission of the European Communities, in particular concerning the regulatory position of cross-border letter mail.

2.3 GERMANY

The German Post Office (Deutsche Bundespost Postdienst) is part of the state administration organised in a 'regie' with a separate budget. The top official responsible for the overall management of the postal services is the Director General. The Ministry for Post and Telecommunications holds the regulatory responsibility covering the postal services and the associated operating divisions (Telekom and Postbank).

In Germany, letters, postcards and printed matters fall under the monopoly, as well as parcels and packets containing a personal message. The weight limit is currently 1 kg, but is likely shortly to be lowered to 500 g; this works in conjunction with a price limit set at ten times the basic letter tariff (that is, at DM 10 for items up to 20 g). The Bundespost refers to the universal service requirement as the justification for the monopoly.

2.4 GREECE

The regulatory body for postal affairs is the Ministry of Transport and Telecommunications. As a civil service department, the Greek Post Office (Hellenic Post) is set up as a public enterprise headed by a Director General who reports to the Minister of Transport and Telecommunications. Although post and telecommunications for the most part function separately, the public telecommunications operator, OTE subsidises the deficit incurred by the postal services.

Letters, postcards and printed papers up to 2 kg fall under the postal monopoly which is justified in the legislation on the grounds of the post being a public service.

2.5 SPAIN

The regulatory body is the Ministry of Transport, Tourism and Communications. The public operator is the Spanish Post Office (Correos) which forms part of the same ministry. It is a state administration, and does not have financial autonomy. It is headed by a Director General.

The postal monopoly includes letters and postcards up to 2 kg, if the items are for inter-urban delivery. (Intra-urban items are non-reserved.) No justification is provided for the monopoly. Caja Postal (the postal financial bank) is a separate entity.

2.6 FRANCE

The French Post Office (la Poste) is one of the operational divisions of the Ministry of Posts, Telecommunications and Space, the other operational division being France Telecom. The Direction de la Réglementation Générale, the regulatory division of the Ministry, is the regulatory body responsible for all postal services in France, whether provided by public or private operators.

Although within the structure of the Ministry, the French Post Office is a public autonomous establishment (établissement autonome de droit public), having a separate budget and headed by a director general. Services falling under the postal monopoly include letters, postcards and packets up to 2 kg. French legislation does not provide a justification for the monopoly. Over and above the monopoly, the postal administration has a universal service obligation for items up to 7 kg.

2.7 IRELAND

The Irish Post Office (An Post) is a limited corporation with all shares owned by the government. The Chief Executive Officer has responsibility for the global management and operation of the postal services. The postal department of the Ministry of Justice and Communications is the regulatory body supervising the quality and reliability of the postal services.

The postal monopoly covers letters, postcards, packets, printed papers and express items up to 2 kg plus parcels which contain a personal message. The monopoly is justified as allowing the cross-subsidisation necessary for providing a national postal service.

2.8 ITALY

As part of the state administration, the Italian Post Office (part of PTT Italia) is administered as a civil service department without administrative or financial autonomy. The top official responsible for the postal services is the director general.

The postal monopoly covers letters and postcards up to 2 kg. While collection and delivery of parcels are not part of the postal administration's monopoly, the transport of parcels between large towns remains part of it. No justification is provided for the monopoly.

2.9 LUXEMBOURG

The Luxembourg Post Office is part of the government administration and has no administrative or financial autonomy. The Director General is responsible for its overall management and the head of the postal division is in charge of the operational side of the postal services. Letter and postcard mail (up to 2 kg) fall under the scope of the monopoly. No justification is provided for the monopoly.

2.10 NETHERLANDS

The Ministry of Transport is the regulatory body which supervises the postal sector in the Netherlands. Since January 1989 the PTT, covering posts and telecommunications, has been established as a limited corporation (NV), the shares of which are owned 100% by the government. PTT Nederland has different operating companies, PTT-Post being responsible for postal services. The General Managing Director of PTT-Post therefore still reports to the board of PTT Nederland.

The justification given for the monopoly, which under Dutch law is regarded as a "concession", is the need to safeguard the quality of postal services. The monopoly includes letter and post card mail weighing up to 500 g and with a postal service price of less than Dfl 8.20 (for domestic services). The European Commission, acting under Article 90.3 of the Treaty of Rome, has issued a decision that the scope and application of the monopoly limits were incompatible with the EC's competition rules. This decision is presently being disputed before the Court in Luxembourg by both the Ministry of Transport and PTT-Post.

2.11 PORTUGAL

As a civil service department, the Portuguese Post Office (Correios) is established as a public enterprise and in particular under the form of a holding company. It is headed by a general manager and its operational side is run by a director general. The ICP - Institute of Communications - is developing an active regulation role. The postal monopoly covers letters, postcards and express items up to 2 kg. No justification is given for the monopoly.

2.12 UNITED KINGDOM

The regulatory body for the United Kingdom's postal sector is the postal section of the Department of Trade and Industry. There is also a "quasi-governmental" body, the Post Office Users' National Council, which also has some supervisory role to play - but only in terms of the services provided by the public operator, the British Post Office. Proposals are presently being studied to set up an independent body, the Office of Postal Services, which would oversee the quality of the universal service provided, as well as advising the government on the appropriate scope of the postal monopoly

The Post Office is a statutory corporation which is organised into three main businesses - Letters, Parcels, and Counters. (The banking division - Girobank, was established as a wholly-owned subsidiary company in 1985 and privatised in July 1990, having been purchased by a building society.) The Counters Business was established as a wholly owned subsidiary, Post Office, Counters Ltd; in October 1987. Royal Mail (Letters) and Parcelforce are not separate legal entities, but they have their own internal accounts and are organisationally distinct.

Royal Mail Letters has a monopoly over the carriage of letters when the service costs £1 or less. (A significant reduction of this limit is said to be being studied by the government.) There are specific derogations concerning international mail, the delivery of Christmas cards and document exchanges.

3. SUMMARY OF ITEMS UNDER MONOPOLY

Table 1 below summarises the items under the monopoly in each Member State. This is the same table as shown in Chapter 3 of the main text; however, here all the qualifying remarks are added.

Table 1: *Member States' reserved services - juridical position(1990)*

MEMBER STATES	LETTERS UP TO	OTHER SERVICES UNDER MONOPOLY					
		PRINTED PAPERS (1)	SMALL PACKETS	FAX (PUBLIC)	EXPRESS MAIL	PARCELS	STAMP SALES
Belgium	2 kg	■ (2)	-	-	-	-	■ (3)
Denmark	1 kg	N/a (4)	-	-	-	-	-
Germany	1 kg (5)	■	-	■	-	-	-
Greece	2 kg	■	-	-	-	-	-
Spain	2 kg (6)	■ (7)	-	-	■ (8)	-	-
France	2 kg (9)	■	■ (10)	■	-	-	-
Ireland	2 kg	■ (2)	■	-	■	-	-
Italy	2 kg	-	-	■	-	■ (11)	-
Luxembourg	2 kg	-	-	-	-	-	-
Netherlands	500 g (12)	-	-	-	-	-	-
Portugal	2 kg	N/a (4)	-	■	■	-	■
United Kingdom	£1 (13)	N/a (4)	-	-	-	-	-

Note 1. This column refers to those postal administrations operating a categorisation

Note 2. Postal distribution of press products also reserved

Note 3. No juridical monopoly, but in practice stamps only sold in post offices.

Note 4. These administrations classify between first class and second class letters. Items which could elsewhere be classed as printed papers would be simply letters, and therefore possibly reserved

Note 5. Also a price limit applied - set at 10 times basic tariff (therefore DM 10 - or ECU 4.90 - for 20g item). The German monopoly applies to all mail with a personal and topical message, and also to mail with personal messages in parcels or packets. However, if such a message refers to the contents of the parcel or packet, this mail does not fall under the monopoly.

Note 6. Does not include city-mail (for intra-urban mail for delivery in same city as collection) Does not cover post-cards

Note 7. Printed papers juridically under monopoly, but said not to be strictly enforced

Note 8. Currently being revised in cooperation with the competition services of the European Commission Likely that monopoly over express services will be withdrawn

Note 9: Universal service obligation up to 7 kg.

Note 10: Contents: packets and documents not exceeding 1 kg.

Note 11: While Italy has placed parcel services in the non-reserved area, the transport of parcels between large cities remains reserved.

Note 12: There will also be a price limit operating in combination with the weight limit of 500g. (The price limit presently proposed is Dfl 8.20 (ECU 3.60) for domestic services, but this is currently being reviewed by the court in Luxembourg). Postcards are not a reserved service.

Note 13: Price limit of £1 (ECU 1.45) is applied (with no weight limit) Reduction to a limit of about £0.33 (ECU 0.48) is being considered.

Source: European Research Associates study

ANNEX 5: COMMUNITY TEXTS ON POSTAL SERVICES

1. INTRODUCTION

This annex lists the references for documents or statements, issued officially by the different Community institutions, that are directly related to the postal sector. It is divided into:

- legislation issued by the Council;
- legislation and decisions issued by the Commission;
- resolutions made and opinions given by the Parliament.

The list does not cover documents and statements which, though relevant, are not directly related to the postal sector. It also does not mention occasions when action has been taken following co-operation between the Commission and individual Member States if this action did not result in a formally issued document or statement. (For example, the list does not mention the instances where, acting on advice from the Commission, the governments of Belgium, France, Germany and Italy decided in turn to allow the free operation of express services.)

2. LEGISLATION ISSUED BY THE COUNCIL

TYPE	REF	DATE	DESCRIPTION
regulation	294/91/EEC	4/02/91	"on the operation of air cargo services between Member States"

3. LEGISLATION ISSUED BY THE COMMISSION

TYPE	REF	DATE	DESCRIPTION
regulation	222/77 (Title V)	13/12/76	"on Community transit - Special provisions applying to postal consignments"
recommendation	79/570/CEE	29/05/79	"on the application of inland postal rates to certain mail between Member States"
directive	79/695/CEE	24/07/79	"on the harmonisation of procedures for the release of goods for free circulation"
regulation	1224/80	28/05/80	"on the valuation of goods for customs purposes"

TYPE	REF	DATE	DESCRIPTION
regulation	3179/80	5/12/80	"on postal charges to be taken into consideration when determining the customs value of goods sent by post"
directive	81/177/CEE	24/02/81	"on the harmonization of procedures for the export of Community goods"
regulation	678/85	18/02/85	"simplifying formalities in trade in goods within the Community"
regulation	1797/86	9/06/86	"abolishing certain postal fees for customs presentation"
decision	87/415/CEE	15/06/87	"concerning the conclusion of a Convention between the European Community, the Republic of Austria, the Republic of Finland, the Republic of Iceland, the Kingdom of Norway, the Kingdom of Sweden and the Swiss Confederation on a common transit procedure"
recommendation	88/590/EEC	24/11/88	"concerning payment systems, and in particular the relationship between cardholder and card issuer"
regulation	4151/88	21/12/88	"laying down the provisions applicable to goods brought into the customs territory of the Community"
decision	90/16/CEE	20/12/89	"concerning the provision in the Netherlands of express delivery services"
regulation	1264/90	14/05/90	"amending Regulation (EEC) No 3179/80 on postal charges to be taken into consideration when determining the customs value of goods sent by post"
decision	90/456/CEE	1/08/90	"concerning the provision in Spain of international express courier services"
communication	COM(90)447	26/09/90	"making payments in the internal market"

TYPE	REF	DATE	DESCRIPTION
directive (draft)	COM(90)314	14/09/90	"concerning the protection of individuals in relation to the processing of personal data"
directive (draft)	COM(90)317	20/09/90	"concerning certain aspects of the organisation of working time"
directive	90/504/CEE	09/10/90	"on the harmonization of procedures for the release of goods for free circulation"

4. RESOLUTIONS AND OPINIONS OF THE PARLIAMENT

TYPE	REF	DATE	DESCRIPTION
resolution	524/82/PARL	19/7/82	"European postage stamp"
resolution	C292/97	14/10/82	"on a European postage stamp"
resolution	2-966/84		"on legal provisions for Community standards for letter boxes"
resolution	2-1534/85		"on Eurorail express items"
resolution	2-1655/85		"on a common market for postal charges"
resolution	2-61/86		"on the introduction of a uniform postage rate within the EEC for periodicals and printed papers. Committee asked for its opinion: youth, culture, education, information and sport"
resolution	2-71/86		"on the creation of a true European postage area"
resolution	2-83/86		"on the rise of postal charges in Belgium and its adverse effects in the cultural sphere"
resolution	2-191/86		"on postal arrangements for printed matter in the European Community"
resolution	2-207/86		"on Belgian postal charges and their threat to the European cultural area"

TYPE	REF	DATE	DESCRIPTION
resolution	2-1362/86		"on printing the words 'European Community' on all Member States' postage stamps and the need to expedite the standardisation and uniformization of postal services and charges in the Community"
resolution	2-638/87		"on the issuing of stamps in ECU"
opinion	PE 118.194/fin	4/2/87	"postage rates for periodicals"
opinion	PE 119.050	16/12/87	"on the compatibility with Community law of the State monopolies in the postal and telecommunications sector
resolution	2-354/88		"on the issue of a postage stamp of uniform value in the EC"
resolution	2-259/88	11/11/88	"on posts and telecommunications"

ANNEX 6: UPU CONVENTION - KEY ARTICLES

1. INTRODUCTION

The titles of all the key articles that are relevant to the discussion in the main text are as shown in Table 1. (Throughout, the article numbering system of Convention signed at the 1989 Washington Congress is used.)

Table 1: *Key articles of UPU Convention*

UPU Article N°	Description of Contents
1	Freedom of transit.
19	Definition of letter post items.
20	General conditions concerning postal charges and weight limits.
25	Posting abroad of letter-post items.
73-74	Terminal dues

The full text of these articles (as in the 1989 UPU Convention) is shown at Paragraph 2 below.

Because of the central importance of Article 25 (previously Article 23) to the debate concerning the compatibility of the Convention with the Treaty of Rome, the evolution and implications of this article are discussed in Paragraph 3.

2. TEXT OF RELEVANT ARTICLES

2.1 ARTICLE 1: FREEDOM OF TRANSIT

1. Freedom of transit, the principle of which is set forth in Article 1 of the Constitution, shall carry with it the obligation for each postal administration to forward always by the quickest routes which it uses for its own items, closed mail and *à découvert* letter-post items which are passed to it by another administration. This obligation shall also apply to airmail correspondence, whether or not the intermediate postal administrations take part in reforwarding it.

2. Member countries which do not participate in the exchange of letters containing perishable biological substances or radioactive substances shall have the option of not admitting these items in transit *à découvert* through their territory. The same shall apply to the items referred to in Article 41, Paragraph 9.

3. Member countries not providing the insured letters service or not accepting liability for insured letters carried by their sea or air services shall nonetheless be bound to forward, by the quickest route, closed mails passed to them by other administrations, but their liability shall be limited to that laid down for registered items.

4. Freedom of transit for postal parcels to be forwarded by land and sea routes shall be limited to the territory of the countries taking part in this service.

5. Freedom of transit for air parcels shall be guaranteed throughout the territory of the Union. Nevertheless, member countries which are not parties to the Postal Parcels Agreement shall not be required to forward air parcels by surface.

6. Member countries which are parties to the Postal Parcels Agreement but which do not provide an insured parcels service or which do not accept liability for insured items carried by their sea or air services, shall nonetheless be bound to forward, by the quickest route, closed mails passed to them by other administrations, but their liability shall be limited to that laid down for uninsured parcels of the same weight.

2.2 ARTICLE 19: LETTER-POST ITEMS

1. Letter-post items shall consist of:

   a) letters and postcards, together called "LC";

   b) printed papers, literature for the blind and small packets, together called "AO".

2. Special bags containing newspapers, periodicals, books and other printed papers for the same addressee at the same address shall be called "M bags".

3. Letter-post items conveyed by air with priority shall be called "airmail correspondence".

4. Surface items conveyed by air with reduced priority shall be called "SAL" (Surface Air Lift).

5. Based upon the speed of their treatment, letter-post items may be divided into:

   a) priority items, i.e. items conveyed by the quickest route (air or surface) with priority;

   b) non-priority items, i.e. items for which the sender has chosen a lower rate, implying a longer delivery time.

6. Administrations of transit and destination shall treat priority items as airmail correspondence; on the basis of bilateral rules, administrations may also give the same treatment to surface LC items when no better service is offered to the sender. Similarly, no distinction shall be made between non-priority items and surface AO items, or surface AO conveyed by air with reduced priority (SAL).

2.3 ARTICLE 20: POSTAGE CHARGES AND LIMITS OF WEIGHT AND SIZE. GENERAL CONDITIONS

1. The postage charge for the conveyance of letter-post items throughout the entire extent of the Union shall be fixed for guideline purposes in accordance with columns 1, 2 and 3 of the table 1 below. The limits of weight and size shall be fixed in accordance with columns 4 and 5 of the table below. *(This table is reproduced at the end of this annex.)* Except in the case provided for in Article 27, Paragraph 6, they shall cover delivery of the items to the place of address provided that this delivery service is operated in the country of destination for the items in question.

2. The Executive Council shall be authorized to revise and to amend the basic charges in column 3 once between two Congresses. The revised charges shall be based on the median value of the charges fixed by the members of the Union for international items from their countries. They shall come into force on a date fixed by the Executive Council.

3. Member countries may, exceptionally, modify the weight-step structure shown in Paragraph 1, subject to the following conditions:

   a) for any category, the minimum weight step shall be that shown in Paragraph 1;

   b) for any category, the last weight step shall not exceed the maximum weight shown in Paragraph 1.

4. Member countries which have abolished postcards, printed papers and/or small packets as separate categories of letter-post item in their internal service may do the same in respect of mail for abroad.

5. Each administration may admit aerogrammes, which are airmail letters consisting of a sheet of paper suitably folded and gummed on all sides. However, notwithstanding Paragraph 1, the dimensions in that form shall not exceed 110 x 220 mm and the length shall be at least equal to the width multiplied by the square root of 2 (approximate value: 1.4).

6. Notwithstanding Paragraphs 1 and 3 (a), postal administrations may apply a first weight step of 50 g to printed papers.

7. The charges adopted within the limits laid down in Paragraph 1 shall as far as possible bear the same relation to one another as the basic charges. Exceptionally, and within the limits prescribed in Paragraph 1, each postal administration shall be free to apply to the charges for postcards, printed papers or small packets a rate of increase or reduction different from that which it applies to the charges for letters.

8. Each postal administration may allow, for newspapers and periodicals published in its country, a reduction of not more than 50 percent of the tariff applicable to the letter-post category used for the item, while reserving the right to restrict this reduction to newspapers and periodicals which fulfil the conditions required by internal regulations for transmission at the tariff for newspapers. This reduction shall not extend to commercial printed papers such as catalogues, prospectuses, price lists, etc, no matter how regularly they are issued; the same shall apply to advertisements printed on sheets annexed to newspapers and periodicals, unless they consist of detached advertising inserts to be considered as integral parts of the newspaper or periodical.

9. Administrations may likewise concede the same reduction for books and pamphlets, for music scores and for maps, provided they contain no publicity matter or advertisement other than that appearing on the cover or the fly leaves.

10. Newspapers, periodicals, books and other printed papers for the same addressee at the same address may be inserted in one or more special bags (M bags). The charge applicable to such bags shall be calculated by weight steps of 1 kg up to the total weight of each bag. Administrations may allow a reduction for such bags of up to 20 percent of the charge payable for the category of item used. This reduction may be independent of the reduction provided for in Paragraphs 8 and 9. M bags shall not be subject to the limits of weight laid down in Paragraph 1. However, they shall not exceed the maximum weight of 30 kg per bag.

11. The administration of origin may, within the limits laid down in Paragraph 1, apply to non-standardized items charges different from those applicable to standardized items.

12. The combining in one item of articles on which different charges are payable shall be authorized on condition that the total weight does not exceed the maximum weight of the category whose weight limit is the highest. The charge applicable on such an item shall, at the option of the originating administration, be that of the category with the highest rate or the sum of the separate charges applicable to each article in the item. Such items shall bear the endorsement "*Envois mixtes*" ("Combination mailing").

13. The letter-post items sent on postal service as mentioned in Article 16 shall not be subject to the limits of weight and size laid down in Paragraph 1. However, they shall not exceed the maximum weight of 30 kg per bag.

14. Administrations may apply to letter-post items posted in their countries the maximum limit of weight laid down for articles of the same kind in their internal service provided that such items do not exceed the limit of weight mentioned in Paragraph 1.

15. Postal administrations may allow reduced charges based on their internal legislation for letter-post items posted in their country. They may, for instance, give preferential rates to major users of the Post. Such preferential rates may not, however, be lower than those applied in the internal service to items presenting the some characteristics (category, quantity , handling time, etc).

2.4 ARTICLE 25: POSTING ABROAD OF LETTER-MAIL ITEMS

1. A member country shall not be bound to forward or deliver to the addressee letter-post items which senders resident in its territory post or cause to be posted in a foreign country with the object of profiting by the lower charges in force there. The same shall apply to such items posted in larges quantities, whether or not such postings are made with a view to benefiting from lower charges.

2. Paragraph 1 shall be applied without distinction both to correspondence made up in the country where the sender resides and then carried across the frontier and to correspondence made up in a foreign country.

3. The administration concerned may either return its items to origin or charge postage on the items at its internal rates. If the sender refuses to pay the postage, the items may be disposed of in accordance with the internal legislation of the administration concerned.

4. A member country shall not be bound to accept, forward or deliver to the addressees letter-post items which senders post or cause to be posted in large quantities in a country other than the country where they reside. The administration concerned may send back such items to origin or return them to the senders without repaying the prepaid charge.

2.5 ARTICLE 73: TERMINAL DUES

1 Subject to Article 75, each administration which, in its exchanges by air and surface means with another administration, receives a larger quantity of letter-mail items than it send shall have the right to collect from the dispatching administration, as compensation, a payment for the costs it incurs for the excess international mail received.

2 The payment provided for in Paragraph 1 shall be fixed as follows:

(a) When two administrations exchange with each other, by air and surface (SAL included), a total weight of LC/AO mail less than or equal to 150 tonnes a year in each direction, the rate applied per kg shall be 2.940 SDR for LC/AO items (uniform rate), excluding the printed papers sent by special bags (M bags) referred to in Article 20, Paragraph 10.

(b) When two administrations exchange with each other, by air and surface (SAL included), a total weight of LC/AO mail greater than 150 tonnes a year in each direction, the rate applied per kg shall be 8.115 SDR for LC items and 2.058 SDR for AO items (separate rate for each category), excluding the printed papers sent by special bags (M bags) referred to in Article 20, Paragraph 10

(c) When the threshold of 150 tonnes is exceeded in a single direction, the administration receiving this traffic in excess of 150 tonnes may choose, for the accounting of the terminal dues relating to the mail received, one of the two payment systems described in Sub-paragraphs a) and b) above. In the absence of bilateral agreement, the mail sent by the administration dispatching less than 150 tonnes a year shall in all cases be brought to account in accordance with the single rate laid down in Sub-paragraph a).

(d) For printed papers sent in M-bags, the rate to be applied shall be 0.653 SDRs per kg, irrespective of the annual weight of mail exchanged between two administrations.

When, in a given relation, an administration which is paid in accordance with the differentiated LC and AO rates of terminal dues indicated in paragraph 2 establishes that the average number of items (LC and/or AO) contained in one kilogram of mail received is higher than the world average which is 48 LC items and 5.6 AO items, it may have the corresponding rates revised if compared with this world average:

- the number of LC items is more than 15 percent higher (i.e more than 55 items) and/or

- the number of AO items is more than 25% (i.e. more than 7 items)

In this case, the terminal dues amount payable by the debtor administration shall be equal to the difference between the sums owed by each administration for its total mail flow after application of the

appropriate rates. The revision shall be carried out on the terms specified in Article 187 of the Detailed Regulations (see footnote*).

4. Any administration may waive wholly or in part the payment provided for in Paragraph 1.

5. The administrations concerned may, by bilateral or multilateral agreement, apply other payment systems for the settlement of terminal dues accounts.

2.6 ARTICLE 74: TERMINAL DUES FOR PRIORITY, NON-PRIORITY ITEMS AND COMBINED ITEMS

1. When a uniform rate for LC/AO items is used under the provisions of Article 73, Paragraph 2, a) and c), that rate shall also apply to priority items, non-priority items and combined items.

2. When separate rates for LC items and AO items are used under the provision of Article 73, Paragraph 2(b) and 2(c), the country of origin and the country of destination may, by bilateral agreement, decide that the rates applicable to priority items and non-priority items shall be fixed on the basis of the actual structure of the traffic. In the absence of an agreement, the provisions laid down in Article 73, Paragraphs 2(b), 2(c) and 3 shall apply. In this case, priority items shall be assimilated to LC and non-priority items to AO.

3. For combined items exchanged under the provision of Article 20, Paragraph 12, terminal dues shall be settled by bilateral agreement between the countries concerned.

4. When an administration decides to discontinue separation of mail into LC and AO in favour of a system based on priority, and the latter produces an effect on terminal dues according to Paragraph 2, the new system can be introduced on the first of January or the first of July only, providing the International Bureau has been so informed at least three months in advance.

3. ARTICLE 25

Article 25 of the Convention deals with what is now known as remail. It states that no postal administration of a Member State of the UPU is bound to convey or deliver letter mail originating within its boundaries but mailed to recipients there from a foreign country. And it adds that they can also refuse to handle mail deposited with it from abroad and destined for third countries.

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* Under Article 187 of the Detailed Regulations, the terminal dues that could be applied to such items falling outside the ranges defined are calculated in SDRs as follows:

LC: [(Average number of items per kg x 0.10) + 0.88] x 1.43.

AO: [(Average number of items per kg x 0.10) + 0.88] x 1.43.

3.1 EVOLUTION

The original intention of this article was to prevent senders in one country from presenting letter mail to the postal service in another country for delivery in the country of origin in order to benefit form the lower tariffs in the foreign country. It was also aimed at preserving the structure of terminal dues.

The scope of the article was extended by the UPU congress of Ottawa in 1957 to items deposited abroad in large quantities whether or not the intention is to benefit from lower tariffs.

It was further extended by the Rio de Janeiro congress in 1979 which gave postal administrations the right to refuse to handle mail received from or deposited with it by senders from another country when it is destined not only for the sender's country but for third countries as well. The Rio congress added the fourth paragraph to Article 25.

3.2 APPLICATION

In practice, postal administrations will have one of two reasons for applying Article 25:

either in the application of Article 25.1, they believe that the mail is domestic mail and therefore their own inland rates are payable (in order to protect their legal monopoly, the practice having been encouraged by the terminal dues being lower than the inland rates);

or in the application of Article 25.4, they wish to display solidarity with the postal administration in which the sender is established which has not been used. They therefore feel they should have received the mail from country A and not from country B, even if the level of payment is the same. The principle is that country A is losing income to which it has a right as a national postal administration.

Against this background, it may seem understandable that postal administrations are concerned by remailing in its various forms. However it may be questioned whether a legalistic approach through the use of the UPU convention is the most appropriate response to what others might see rather as a commercial problem.

The main text of the Green Paper discusses whether the UPU instruments against remail are properly aligned with the competition rules of the Treaty of Rome and with the objectives of the Single Market

Table 1: *Article 20 - recommended weight steps, basic rates, maximum weights and dimensions*

ITEMS 1	WEIGHT STEPS 2	BASIC RATE (SDR) 3	WEIGHT LIMITS 4	DIMENSIONS 5
LETTERS	up to 20 g from 20 g to 100 g from 100 g to 250 g from 250 g to 500 g from 500 g to 1000 g from 1000 g to 2000 g	0.37 0.88 1.76 3.38 5.88 9.56	2 kg	Maxima: length, width and depth combined, 900 mm but the greatest dimension may not exceed 600 mm with a tolerance of 2 mm. In roll form: length plus twice the diameter, 1040 mm, but the greatest dimension may not exceed 900 mm with a tolerance of 2 mm Minima: to have a surface measuring not less than 90 x 140 mm, with a tolerance of 2 mm. In roll form: length plus twice the diameter 170 mm but the greatest dimension may not be less than 100 mm
POST-CARDS		0.26		Maxima: 105 x 148 mm, with a tolerance of 2 mm Minima: 90 x 140 mm, with a tolerance of 2 mm. Length at least equal to the width multiplied by $\sqrt{2}$ (aproximate value 1.4).
PRINTED PAPERS	up to 20 g from 20 g to 100 g from 100 g to 250 g from 250 g to 500 g from 500 g to 1000 g from 1000 g to 2000 g for each supplementary 1000 g	0.18 0.40 0.74 1.32 2.21 3.09 1.54	2 kg (for books and pamphlets: 5 kg; this limit of weight may be raised to 10kg after agreement between the administrations concerned)	Maxima: length, width and depth combined 900 mm but the greatest dimension may not exceed 600 mm with a tolerance of 2 mm. In roll from: length plus twice the diameter, 1040 mm, but the greatest dimension may not exceed 900 mm with a tolerance of 2 mm Minima: to have a surface measuring not less than 90 x 140 mm, with a tolerance of 2 mm. In roll form: length plus twice the diameter 170 mm but the greatest dimension may not be less than 100 mm
CECO-GRAMS	see Article 18		7 kg	
SMALL PACKETS	up to 100 g from 100 g to 250 g from 250 g to 500 g from 500 g to 1000 g from 1000 g to 2000 g	0.40 0.74 1.32 2.21 3.09	2 kg	

ANNEX 7: QUALITY OF SERVICE

1. INTRODUCTION

When considering the meaning of "quality", it is important for all service providers to consider each of the main phases that make up the total service, and in particular those phases that the customer directly experiences. Thus, although the time that an item takes to be delivered is essential, other aspects of quality could also be important to the customer.

To highlight a few such aspects, these could include the attitude of sales staff, the availability of credit, the flexibility of collections, the smartness of delivery staff, the reaction when an item cannot be delivered, and the prompt availability of service performance information; in short, the different aspects of how customer-oriented an operator actually is.

Further, the definition of quality is likely to become ever more demanding for operators. What may have been accepted as satisfactory quality until recently may now appear inferior. As an example, many operators in the recent past considered customer service as an operational function, where a member of the operational staff would answer personal or telephone enquiries; now it is likely to be a specially trained customer service operator. (At the same time, of course, all staff who help to provide a service are, in some sense, part of the marketing of that service.)

Providing quality requires the establishing of a cycle which repeats itself. Standards need to be set (internally, externally, or both), performance needs to be measured against the standards. The comparison of performance against standard then needs to be analysed, and action taken to make up any shortfall between standard and performance

Below, some further comments are given on target-setting and performance measurement. These comments particularly refer to letter services, since they are the services for which there is the main universal service obligation. (Some Member States also impose a juridical or "de facto" universal obligation for light-weight parcels.) The quality of other services is stimulated mostly by competitive pressures. (The subjects of target-setting and performance measurement, as well as the control function, are also discussed in Chapter 4, Paragraph 7.)

2. STANDARDS

Most, but not all, of the Community's postal administrations have publicly stated targets for domestic letter mail. However, these targets are not the same. For letters (that is, excluding either printed papers or second class letters), performance is usually measured against a next working day (known as D + 1) target. (The target for the Spanish postal administration is D+2.) The percentage to be delivered by this target date varies between 81% and 100%.

Some of the administrations who have a letter/printed paper tiering system set lower standards for postcards and printed papers. Those who have a first class/second class tiering system naturally have slower standards for second class.

3. MEASURING SYSTEMS

Most measuring systems used to produce figures for publication are carried out by the postal administrations themselves. Two administrations have contracted outside agencies to carry out the work. (In addition, postal administrations may undertake on a regular basis other internal studies to provide further information on service performance.)

There are several different measuring systems used in the Community. (The public is not aware of the different systems - only of the perceived reliability or otherwise of the results produced.)

One system measures from the point that the mail collected arrives in the sorting office to the point where it is prepared in the delivery office for delivery. Another measures from the time the collected mail arrives in the sorting office to the time it is received in the delivery office (but before preparation for delivery). Another system measures from the time the mail is posted by the customer until it arrives at the final delivery point.

The third of these systems (which is usually called "end-to-end") measures the complete span of the process, as experienced by the customer. Any other system (including the two others mentioned here) will measure only part of the process. The difference in results can be substantial. One administration that had previously carried out its survey from sorting office to the preparation stage in the delivery office then changed to a contracted-out survey system measuring end-to-end. The latter system revealed that quality of service was more than 10% less than the results of the former system.

The break-down of results measured vary significantly. Some administrations publish only average national results. Others break the results down into performance within the locality, regionally and nationally. Some results even show differences in performance depending on how the mail was paid for (by contract, by meter postings or by stamp - see Annex 3, Paragraph 2 and at Chapter 5, Paragraph 4.1 for a further description). Presumably, some administrations which do not publish such a detailed break-down have the figures but use them only for internal operational purposes.

4. OTHER ASPECTS OF QUALITY

As indicated above, the quality of all aspects of the service provided can be measured. Here, emphasis is given to certain aspects that relate to pre-posting and post-delivery.

4.1 PRE-POSTING

For ordinary individual customers, access to mail services concerns the availability of stamps and of information regarding the use of the services (and then the proximity of the posting boxes). The wide availability of sales points for stamps is therefore important.

However, the vast majority of stamp sales is likely to continue to be made through post offices counters (particularly if posting information is needed). The length of time spent queueing for service is therefore important, as is - and this cannot be over-emphasised - the politeness of staff. Both aspects can be measured (for instance by using "mystery shoppers" who anonymously use the

services of different counters, and then measure performance), and compared against internal standards.

4.2 DELIVERY AND POST-DELIVERY

For many organisations, the promptness of the daily delivery by the postal administration is very important. Indeed, certain postal administrations have a special service (for which a fee is charged) which assures delivery before 07:30 each morning. Some administrations also provide two deliveries per day at least in core areas.

Effective after-service treatment is also essential. The way in which complaints or queries are handled after an item has been delivered is also important. Again, it is possible to set standards and measure performance. (Here, the standards should be published.)

All complaints should, of course, be dealt with as promptly as possible. This is equally important for complaints concerning cross-border as for domestic services. In the case of cross-border mail, investigations can be made more difficult because two operators are involved. Some decisions may be required as to what the acceptable time limit should be for a reply to be given. (At present, the CEPT standard is six months.)

Consideration should perhaps also be given to whether there should be standard procedures regarding compensation for lost or damaged items. (The actual limits of compensation will continue to vary.)

Postal administrations should have a declared policy on whether they publish figures for lost or damaged items, or for mis-routed or mis-delivered items.

ANNEX 8: TERMINAL DUES

1. INTRODUCTION

For many years mail was "traded" between countries without any accounting system. Any trading imbalance in volume was "written off". Then, a system of charging the expediting administration was introduced. Rather than both administrations involved in each trading relationship paying the charges due, it was agreed that only the net expediter should pay on the net volume sent to the net receiving country. Because of this, the compensatory system became known as "imbalance charges".

These charges were introduced purely on the basis of weight. The assumption was presumably made that the average kilo traded between any two countries would have more or less the same contents. The charging system did not take into account either the number of items or the service desired.

The charges are known as terminal dues. They were, and are, overseen by the UPU. Terminal dues are measured in gold francs (gf), a notional currency which has a fixed exchange rate with the Special Drawing Right (Droit de Tirage Special). The fixed rate is 1 SDR = 3.061 gf. (A gold franc equates to approximately ECU 0.35.) The terminal dues are reviewed at each UPU congress, held every five years. The progression of terminal dues is shown in Table 1.

Table 1: *Past increases of terminal dues*

Congress	Years applied	Rate
Copenhagen	1975-1979	1.5 gf/kg
Rio de Janeiro	1980-1984	5.0 gf/kg
Hamburg	1985-1989	8.0 gf/kg

Source: UPU Conventions (1974, 1979 and 1984)

The increases have tended to be a matter negotiation rather than an attempt to reflect cost accurately. The less developed countries (who have the same voting rights in the congress as the developed countries) are in the majority. The are also net recipients in terms of weight (typically, perhaps receiving heavy printed matter and sending back light-weight items). The less developed countries appear to have a vested interest in the retention of a weight-based compensation system. Not surprisingly, they appear to have been tempted to raise the rates as high as the "market" (that is, the developed countries) would bear.

The international mail system controlled by the UPU operates only between postal administrations. The UPU does not recognise the role of private operators in the system. If a private operator wishes to gain access to this system, it has to do so

through the services of at least one postal administration. Since terminal dues would be an important cost element for that postal administration, they will make up a significant proportion of the price paid by the private operator to the postal administration for access to the international mail system.

2. CURRENT TERMINAL DUE RATES

In the last Congress in Washington in December 1989, a more complex structure of terminal dues was agreed. The full UPU text relating to this structure is shown at Annex 6 (under Article 73 of the UPU Convention).

The new structure differentiates between traffic flows of more than or less than 150 tonnes annually (a significant figure which would apply only to major postal trading partnerships). If traffic exceeded this figure in both directions, there would be separate charges per kilo for LC and AO traffic; if less, there would remain a unitary charge applying to both. In addition, if the average weight of the traffic of an "outward" postal administration was found to differ significantly from the world-wide average, the "inward" administration could charge a different rate based on a charge per item.

In the meantime, certain CEPT members and other postal administrations had initiated their own scheme which involved both a unit charge and a weight charge. This at least partly would overcome one of the problems (noted at Paragraph 3.1 below) with the UPU system - that of having the charging system based solely on weight. However, investigations into this scheme are currently being carried out following a complaint that the scheme is unfairly anti-competitive against private operators.

As a result of the decision of the Washington Congress (and the earlier CEPT initiative), there are now at least five different systems operating in parallel in the Community:

- the CEPT system (operating, for example, between France and the UK) - 0.37 gf/item plus 3.75 gf/item;
- above 150 tonnes each way (for example, between Italy and Federal Republic) - 24.85 gf/kg for LC and 6.3 gf/kg for AO;
- less than 150 tonnes in one direction (for example, Greece to France), but more than 150 tonnes in the other - either 9 gf/kg in both directions or only in one direction and the split rate in the other;
- less than 150 tonnes in both directions (perhaps between Greece and Portugal): 9 gf/kg for both LC and AO;
- deviation from the LC/AO "norm" (perhaps from the Netherlands to France: 0.44 gf/item plus 3.85 gf/kg.

In addition to the UPU and CEPT systems, there could always be other bilateral or multilateral agreements agreed between two individual postal administrations. (The UPU Convention permits such agreements willingly entered into by the postal administrations concerned.)

3. RELATIONSHIP BETWEEN TERMINAL DUES AND COSTS

There appear to be three areas where a single universal system of terminal dues does not seem to accurately reflect costs, and a fourth where it makes no allowance for the pricing structure.

3.1 ITEMS/WEIGHT

Before the Washington Congress the same compensation was paid in kilos regardless of the number of items of that the kilo comprised. Thus, a kilo that contained 100 x 10 g letters merited the same payment as a kilo that comprised 2 x 500 g books.

Of course, the delivery costs for the receiving administration are vastly different. Heavier items are generally more costly to deliver (although the more important factor is size), but certainly the percentage cost increment is much less than the percentage weight increment.

As reflected in the public tariff structure of each administration, a more accurate reflection is a unit cost with a gradual weight increment.

3.2 SERVICE REQUIRED

The standard terminal dues system does not allow for the different service levels required. Thus, a newspaper requiring speedy delivery will attract the same compensation as a printed paper item of the same weight, for which a slower delivery could be sufficient. In general, the items requiring speedy (first class) delivery are light-weight items; items requiring slower (second class) delivery tend to be heavier. This therefore accentuates the variation between the compensation received and actual costs.

3.3 STANDARD RATES

The structure is a universal system, and therefore suffers from the problem of averages. (It is suggested above in Para 1 that the rates set are not guided by an assessment of average costs.) Inevitably, actual delivery costs will vary significantly from country to country. Productivity varies for several reasons, some of which are not in the control of the administration. The effectiveness of the transport systems varies - often reflected past government policy. Most crucially, labour rates vary between countries, and this is mostly outside the control of the administrations.

3.4 DISCOUNTS

The UPU Convention suggests that postal administrations offer discounts (usually 50%) on printed paper reduced rate items, such as books (see Annex 13 and at Annex 6 under Article 20 of the Convention). However, many of these items are the very items which incur the heaviest terminal dues. Margins are therefore squeezed by upward cost pressure and downward price pressure. Indeed, there is no knowledge of any administration that has preferential rates for such items that cover direct costs.

4. EXAMPLE OF MULTI-LATERAL SCHEME - NORDIC UNION SCHEME

As noted at Paragraph 2 above, any group of postal administrations can enter into a scheme which, by their mutual agreement, varies from the UPU system of terminal dues. This permits some essential flexibility since the postal administrations of most "developed" countries recognise that the UPU system is very deficient. The CEPT scheme is an example of a multi-lateral scheme. Another interesting example is that operating between the members of the Nordic Union.

Since 1989, the postal administrations of the Nordic Union (comprising Denmark, Finland, Iceland, Norway and Sweden) have applied between themselves (and invited other postal administrations to join) a compensatory system based on the domestic tariffs of the delivery country. The profile of the traffic is determined through sampling, and the charges are then calculated by applying prices set at 60% of the domestic tariff of the country of delivery

Interestingly, for this scheme, it is the postal administration in the originating country that determines the speed of delivery. It should be noted, by contrast, that in relationships between other pairs of postal administrations there are often "streaming" problems concerning cross-border mail exchanged between postal administrations if one applies an LC/AO classification and the other a first class/second class system.

ANNEX 9: REMAILING

1. DEFINITION

Remailing refers to the cross-border letter services provided by private operators. The remailing element relates to the activity of the private operator, which involves the collaboration of at least one postal administration. In almost all cases the common factor is final delivery through the postal administration in the destination country.

In essence, there are three main different types of remailing (the order given below reflecting what is thought to be the relative importance of each in terms of revenue):

A-B-C: The private operator collects the mail from the customer, consolidates it with other such mail from the same country (A), and freights it to another country (B). There, it is posted (remailed) with the postal administration, which then sends it through the international mail system to the postal administration in the destination country (C) for delivery there.

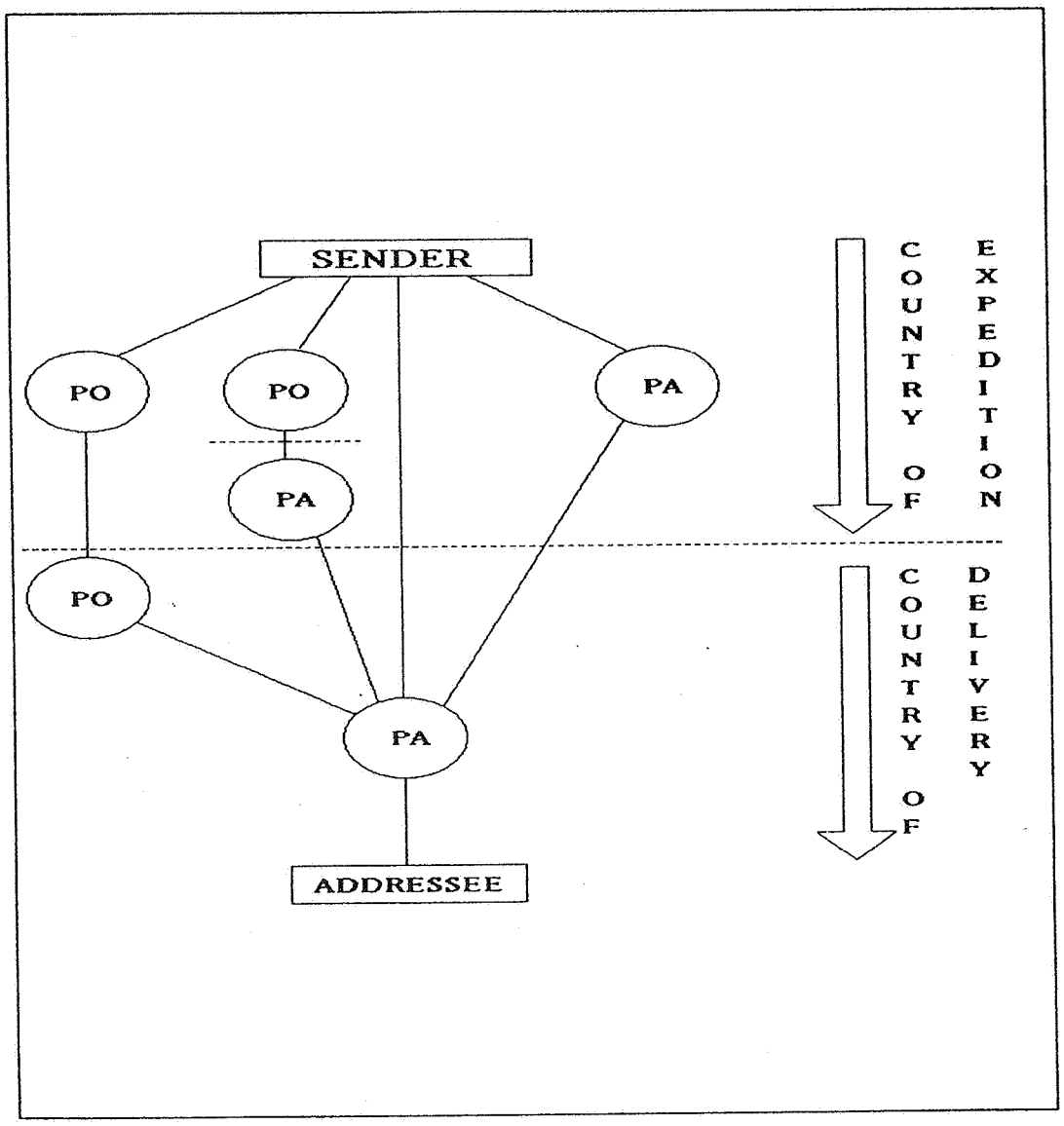
A-B-B: The private operator collects the mail from the customer (in country A), freights it to the country of delivery (B), and posts it there with the postal administration which then delivers to the addressee (still in country B). A variation of this is when the private operator himself delivers the items to the addressee.

A-B-A: The private operator collects domestic mail in country A, freights it to another country (B) for posting with the postal administration there. The postal administration sends the mail through the international postal system back to country A for delivery there. (It seems clear that this activity is illegal for items which fall within the reserved area of country A.)

In summary, A-B-C involves cross-border mail using the international mail system between postal administrations. A-B-B involves cross-border mail using the domestic system of the delivery administration. A-B-A involves domestic mail but which goes through the international mail system between administrations.

Figure 1 below puts A-B-C and A-B-B remail in the context of the other services against which they compete. The route on the left using POs (private operators) represents the A-B-B process. The next route using a combination of PO and PA (postal administration) represents the A-B-C process. The next route reflects the option of a customer transporting his mail into the country of delivery and posting directly with the administration there. The last route reflects the conventional route of posting with the national postal administration which then sends the mail through the international mail system to the postal administration in the destination country for delivery there.

Figure 1: *Cross-border routeing*



PA: Postal Administration
PO: Private Operator
PA *: Postal administration in intermediate country
(Broken lines signifying a national border)

2. ORIGIN AND EVOLUTION

Remailing probably existed long before it was given the name. For many years, publishers and their agents have transported publications into the destination country for posting there. (This has since come to be known as A-B-B remail.) The advantage was the access to the preferential tariffs that are usually available for domestically posted publications. Locally posted print remail is still almost certainly the largest

segment of the remail market, measured by volume. It may also be the largest measured by revenue.

In the 1970s, the airline KLM started its Publications Distribution Service, serving the US publishing industry's cross-border requirements, particularly for distribution in Europe. KLM used Amsterdam as its "hub", injecting the mail into the international postal system through the Netherlands Post Office (as the "remailing" administration). KLM remains the market leader for US-originated publications air-shipped for delivery in Europe.

By the mid 1980s, their traffic was said to be 20,000 tonnes per year - a volume that helped to optimise use of spare freighting capacity. The A-B-C remail system pioneered by KLM and the Netherlands Post Office was based on the inequities of the terminal dues system (discussed in Annex 8). However, because publications tend to be heavier than the average item, terminal due costs were still high, and margins therefore low.

Much larger margins were available for light-weight traffic, which tends to be letters rather than printed papers. (In most countries, there tends to be a regulatory difference between the two.) Prices for letters tend to be much higher than for printed papers. The costs, based on terminal dues, also were much lower. For example, against a delivery cost of perhaps ECU 0.24 for a 20 g item, the terminal dues operating in the years 1980-85 provided a compensation to the delivery administration of only ECU 0.04, and those in the years 1985-1990 only ECU 0.06.

Around 1983/84 several US operators, most of them small, started to offer remail services for letters. Initially, the only postal administrations who would offer such A-B-C facilities to remailing operators were not located favourably for service - two examples being Panama and Puerto Rico.

The situation changed when, in the mid 1980s, an express company, TNT, signed a remail contract, covering both letters and print, with the Belgian Post Office. The Netherlands Post Office responded by relaxing rules on what was permitted to be posted through its printed paper remail contracts (and later offering some letter remail contracts).

By the second half of the 1980s, several other postal administrations were offering remail facilities. Outside Europe, the most important were Hong Kong, Dubai and Bahrain. Within Europe, the British Post Office entered the market for print remail, while the airline SAS offered letter and print remail facilities in conjunction with the Danish Post Office. More recently, the Hungarian Post Office has started to offer remail facilities.

3. COSTS AND PRICES

Remail enters the mail streams of a postal administration in different ways, with prices varying according to the different ways. As the destination administration which delivers the items, a postal administration would receive terminal dues for delivering A-B-C remail (or A-B-A remail if it is accepted). For A-B-B remail, the delivery postal administration would receive the appropriate domestic tariffs.

As mentioned above, some postal administrations offer remail facilities to enable mail collected by private operators to enter the international mail system (as operated between postal administrations). Most postal administrations offering such facilities

specifically exclude their use for posting items collected in their national territory. They therefore tend to see such remail as providing incremental volume and revenue. Pricing tends to be set on a basis of marginal costs plus a small margin for profit.

For the private operator pricing his services to potential customers, the prices will be determined by market conditions. These will depend primarily on two points. Firstly, how many other private operators are competing? Secondly, has the postal administration (which provides the benchmark for both prices and service) reacted to the competition by introducing special contract facilities for large customers with cross-border mail needs?

Generally, charges paid to postal administrations for letter remail facilities account for about 40% of the prices that private operators can achieve. Out of this, he has to pay for his sales, collection, freighting and customer servicing cost. Assuming satisfactory volumes, he should be able to achieve good profits.

4. SERVICE

Whether remailers provide a better or worse service than the postal administration depends, naturally, on both their own efficiency (and that of the postal administration with which they post) and the relative efficiency of the postal administration against which they are competing.

Remail evolved in the United States partly because the size of the market there made it an attractive proposition and partly because the postal administration (the United States Postal Service) was perceived to be providing such poor service. Interestingly, the USPS prices its services below its competitors for both letter and printed paper cross-border services, but private operators continue to have a significant market share.

If the postal administration is reasonably efficient, it should be able to provide a better service than a remailer using an A-B-C system (because the latter involves at least two freighting journeys). However, A-B-B remail may well be able to offer a service superior to that of the postal administration. (At the same time, it should be noted that A-B-B remail is often motivated more by the attraction of being able to post items - often the heavier ones - at the domestic tariffs of the delivery administration, since these tend to be lower than the relevant than the relevant terminal dues.)

Of course, service covers much more than transit times. Private operators have tended to lead the way in offering many other features. These include more flexible accounting facilities, credit and flexible collections. Perhaps the greatest contribution made has been in encouraging the increased or better use of sales account management. Of course, none of these additional features are monopolies of the private operators, and some postal administrations have responded by improving their own standards (arguably, in some cases, improving on standards set by private operators).

ANNEX 10: POSTAL OPERATORS' CODES

1. INTRODUCTION

This description of postal operators' codes covers the two main types of codes:

- functional: which are publicised externally for use by the public (that is, post-codes);

- technical: for the internal operational use of postal operators.

The annex also seeks to discuss how each type is applied and what is the operational importance of each. Because the post-codes for public use are those that are more readily known, the discussion concentrates mainly on these.

2. FUNCTIONAL CODES

Functional codes are the designation for the post- codes used by the customers of postal administrations, at the request of the latter.

Most levels of postal automation cannot operate without the use of functional codes. These codes can be divided into three categories: route-sorting codes, distribution codes and mixed codes.

The route-sorting code facilitates the automatic sorting of mail going from one city to another. To permit sorting down to a more detailed level - to the postman's "walk" (or delivery round), a distribution sort code is needed. A code that combines the two functions is termed a mixed code.

2.1 CODING SYSTEMS CHOSEN

Experience of post-codes and the ways in which they may develop are influenced by the coding systems that have been established. When considering the introduction of post-codes, postal administrations essentially had two choices: either a system whose codes were easy to memorise (all numeric with perhaps up to 6 digits) or a system that permitted the maximum sortation possible. The different systems actually applied by the postal administrations of the Member States and of certain other countries are summarised in Table 1. The benefits and problems are assessed below:

2.1.1 EASY TO MEMORISE CODES

Examples of countries that introduced such codes are Belgium and the Federal Republic of Germany (both 4 digits), and France and Italy (both 5 digits). These codes permit sortation down to suburb or small town level. These levels of sortation equate to sorting down to the first level of the "inward" codes described below. In general, these codes quickly gained a high degree of public acceptance. The rate of use (the "penetration rate") is 96% in France and more than 90% in the Federal Republic.

Table 1: *Post-code structures*

COUNTRY	DESCRIPTION OF POST-CODE SYSTEM
Belgium	1234...Name of City
Denmark	1234...Name of City. Copenhagen will be followed by K or V (office of delivery) and Frederiksborg followed by C,N or O
Germany	1234...Name of City, for the large cities, like Berlin, Munich, Frankfurt, office of delivery marked with 1 or 12, so for example: 80000 Munich 12
Greece	12345 Name of City
Spain (1)	12345 Name of City, plus name of province added in brackets
France	12345 First two characters correspond to département number. Office of delivery (mostly the same as name of residence. Cedex special delivery for companies with fictive P.O. boxes, in some cases followed by 12 for Paris, Lyon and Marseille
Ireland	(no post-code system-)
Italy (2)	12345...Name of City
Luxembourg	1234...Name of City
Netherlands	1234 AB Name of City (a combination of four numerals and two characters)
Portugal	1234...Name of City Codex for companies (see France)
United Kingdom	Consists of two elements. The second is the inward part of code, and always consists of three characters (numeric, alpha, alpha). The first element is the outward part of the code. It starts with one or two alpha characters signifying the nearest large town. This is then combined with one or two numeric characters, and sometimes a further alpha. The possibilities are therefore AB1C 2DE, A12 3BC, AB12 3BC, AB1 2CD
USA	Name of City ..[(zip code + 4) = (AB 12345 -1234)]
Japan	Name of City ..123-12

Note 1 Includes Andorra

Note 2 Includes San Marino and the Vatican

Source: Postal administrations

2.1.2 CODES FOR MAXIMUM SORTATION

The only EC postal administrations that have implemented such codes for maximum sortation are the Netherlands and the United Kingdom. The typical code for the latter can be expressed as AB1 2CD - that is, alpha, alpha, num, then num, alpha, alpha. The first part (the "outward" code) sorts to the post town and its surrounding area (or the suburb of a large city). The second part (the "inward" code) sorts down to a section of a street (covering, on average, 15 houses).

Canada has a similar 6-character alpha-numeric coding system. The US has introduced a supplementary code called "Zip + 4": to the standard digit Zip code have been added 4 more digits. All four systems permit sortation down to the individual postman's walk (or what is known in the US as a "carrier route").

These levels of complexity are required in order to give the required number of variables for detailed sortation. (The US system has 100m variables for a population of 260m.) The disadvantage is that the codes are difficult to memorise, particularly in the case of alpha characters. This explains the low penetration rates. The US rate has fallen back to 55%. The UK rate is now 75%, having gradually increased from about 50%. In both cases, the levels of penetration have resulted particularly from the volumes of traffic posted with the aid of computerised mailing lists (encouraged in both countries by discounts).

2.2 OPERATIONAL

It is obviously the case that the shorter the post-code, the shorter the time spent on the initial keying process (where manual coding desks are used) which relates to the number of key depressions. The inclusion of alpha characters (as in the UK system) slows the key depression rate. It may also increase the likelihood of mis-keying.

For the future, two developments will affect the assessment of different sorting systems. Firstly, the increased use of Optical Character Readers (OCRs) will reduce the differential in sorting times between simple and complex codes, as well as perhaps reducing the potential mis-keying problem of the latter. Secondly, the trend of decreasing capital costs is likely to make it viable to introduce mechanised sorting equipment in smaller distribution and delivery centres. Both developments may permit greater productivity gains to be made from more complex post-code systems.

2.3 COMMERCIAL ASPECTS

The use of the post-code has advantages for the business mailer, whether of individually produced items such as invoices or bulk-produced direct mailings. It may permit him to pre-sort before lodging the mail with the Post Office (or private operator, if permitted), and thus gain discounts. Perhaps more importantly, it enables him to divide his address list on a geographic basis, using generally accepted codes. (Before post-codes, some mail order houses used their own geographic coding systems.) Post-codes are now an essential tool for any company with a large address database. The complete absence of a post-coding system in Ireland (outside a limited area coding system in Dublin) therefore inhibits computer manipulation of address data for that country.

3. TECHNICAL CODES

Technical codes relate directly to the operational use made of coding systems. There are two such systems, one relating to codes printed on letters to enable automatic sorting and the other relating to bar-codes used in the processing of individual items.

3.1 CODES FOR AUTOMATIC SORTING OF LETTERS

Firstly, the ordinary functional codes need to be converted into technical codes before automatic sorting can take place. The functional code is therefore "translated" from the functional code's format (numeric or alpha-numeric) into a technical code, expressed in binary, consisting entirely of the characters 0s and 1s. This binary code refers to exactly the same destination co-ordinates as the functional code.

When printed on the envelope to be sorted automatically, these binary characters are represented by spaces for the 0s and either dots or bars for the 1s. If only an outward post-code is in use, these markings will be printed in a short line at the foot of the letter. If both outward and inward codes are used, either an extended line is printed, or two lines are printed, the upper line being for the inward code. These technical codes can then be "read" by the automatic sorting machines.

It should be noted that UPU rules do not permit the printing of technical codes by the "outward" postal administration on cross-border letter items, in case the markings may become confused with the technical codes which the "inward" administration may wish to print on the same items.

3.2 BAR-CODES

Bar-codes tend to be used for individual, larger items. Examples are parcels, express items, or even bags containing letters. The bar codes not only include destination identifiers, but may also include other data such as information concerning the customer, the service used, the originating operational centre or the date of posting. The bar codes are either printed directly onto items or printed onto labels which themselves are then affixed to the items.

The bar-codes can be read by scanners, so that the items can be sorted automatically. The same technology can also be used to provide the data needed to operate "tracking-and-tracing" systems. Such systems require that items are scanned at distinct points in the process between collection and delivery, progress being noted electronically. They therefore permit individual items to be tracked throughout the whole process, information being available on when each point - up to delivery - was reached.

Sorting through using bar-code systems is becoming increasingly common for both parcels and express operations. Tracking-and-tracing systems are used more in the express sector, but similar systems are also to found in some parcels operations.

4. IMPACT OF CODES USED

Most postal administrations have committed themselves to investing in automated sorting machinery, and then trying to maximise the percentage of items sorted automatically. However, the results for those administrations thus committed to

mechanisation have been variable - between 8% and 50% being sorted automatically. (The sorting carried out can vary between a simple sort by post-town to detailed sortation down to each delivery round.) The differences are attributable to a number of factors, including the different percentages of mail pre-sorted by customers. However, differences in use of post-codes has also in the past been an important factor.

Through comparisons between different postal administrations in the world, it is clear that administrations have taken varying approaches in the attempt to reach the highest levels of post-code "penetration". Some rely on sustained campaigns, and investing in maintaining the post-code data base (an investment which costs one large administration ECU 60 million per year).

For others, the post-code is simply part of the standard address: if it is not included, the item is incorrectly addressed. Still other postal administrations have taken different measures to try to improve the rate - such as the initiative by Canada Post of encouraging envelope manufacturers to print on envelopes a box for the sender to write/type in the post-code.

In the future, for certain postal administrations able to make the investment, the level of post-code penetration will be important more as an aid to quality of service. New generations of optical character reader (OCR) equipment will be able to "read" the relevant details from the address (and convert them into the necessary technical code for sorting), using the (functional) post-code only as a checking device. Other administrations, which continue to use automatic sorting machinery not based on OCR, will still need to use post-codes as the basis for their automated sorting processes.

However, post-codes will also remain important for reasons beyond the automated sorting process in postal administrations' sorting centres. Firstly, post-code systems are an invaluable help for all express operators who use bar-coding systems to provide track-and-tracing facilities.

Secondly, large customers undertaking pre-sorting usually computer sort their mail through the post-code. Further, in those countries that permit customers to print bar-codes on envelopes to assist the automated sorting of the postal administration, these bar-codes are themselves translations of the post-codes.

In relation to the levels of sortation made possible through the post-code, a comparison can be drawn between the simple post-codes which sort down to towns or general areas, and the more detailed post-coding systems which will permit sorting down to individual delivery offices within towns, and indeed to individual delivery rounds (also known as postmen's walks). In this perspective, those administrations which presently have the more simple post-codes may wish to make their systems more detailed (as, for instance, the United States postal service has done), in order to permit either a more detailed sortation by themselves or a more detailed pre-sortation by the customer.

All these benefits can be attained without any recourse to a single integrated European post-code system. (A knowledge of the different systems is sufficient for customers to carry out the different pre-sortations required.) However, there do seem some possibly significant benefits in having a standard format for writing addresses (for instance, in terms of the placement of the initial(s) identifying the country).

As with other aspects of potential harmonisation, the Commission, in cooperation with Member States, will investigate with the interested parties the benefits and costs of harmonisation measures that may be necessary.

ANNEX 11: POSTAL EQUIPMENT INDUSTRY

1. INTRODUCTION

This annex seeks to provide an introductory analysis of the postal equipment industry. This is the industrial sector which produces installations and equipment for the postal process and which produces transport and storage facilities for use by postal services.

2. EQUIPMENT USED

Investment in equipment used for postal operational purposes falls into three categories:

1. specialised postal equipment;
2. customised equipment (but with general purpose origin);
3. other equipment.

The main users of such equipment in the postal sector are the operators, both public and private. However, it should be noted that this equipment is also used by large organisations which have sufficiently large volumes that they have invested in their own postal processing departments. For many such organisations, the equipment is used for preparation of the mail before it is posted with the operators. Others - particularly in the mail order industry - can carry out many of the main postal operational functions themselves.

Examples of equipment in the three categories are shown in the three tables below.

Table 1: *Specialised postal equipment*

Equipment that is used only by postal operators, because of the particularities of the services they are providing:

- Franking machines (used either by postal operators or larger customers)
- Stamp vending machines
- Posting boxes
- Culler/facer/cancellers
- Pre-sorting machines
- Automatic letter sorting machines
- Automatic packet/parcel sorting machines
- Associated software development

Table 2: *Customised equipment*

Equipment that is used in other sectors, but requires specialized customisation for postal applications:

- Automated terminals for post office counters
- Self-service vending machines
- Optical character reader (OCR)
- Video coding system
- Bar code sorter
- Tracking and tracing systems
- Customised weighing machines
- Artificial intelligence/robotics
- Belts and conveyors
- Plastic conveyance boxes

Table 3: *Other equipment*

Other equipment widely used for general purposes, that a demand for a relatively small automatization (if any) and for which the postal operators purchase only for a small percentage of total sales:

- Computers
- Printers etc.
- Telecommunications equipment
- Weighing machines
- Lifting machines
- Transport

Of the equipment mentioned above, perhaps the two most significant innovatory applications to the postal sector are those of OCR and of tracking-and-tracing systems. The latter enables great improvements to be made in the facilities that can be provided to customers (particularly of express services). The former is having a significant effect on the letter operation. Whereas traditional "mechanisation" may well sometimes have had only a marginal effect in terms of raising service or s ving costs, OCR may permit important operational advances to be made.

The importance of customised software should also be emphasised. Because postal operators often do not have the in-house capacity to generate the software needed, the task is frequently contracted out. This expense can be a significant proportion of development costs.

Less obvious is the gradual evolution in materials handling during the letters operation. Trays are more and more replacing bags as containers for letters. This increases the opportunities for mechanising the movements between the component processes during the letter operation.

3. SUPPLIERS

Table 4 shows the largest suppliers of the specialist postal processing equipment. (They tend also to cover applications of the customised equipment - for example, integrating optical character reader technology into automatic sorting systems.)

Table 4: *Survey of most important suppliers of postal machinery*

COUNTRY	MANUFACTURER
Denmark	Kosan Crisplant
Germany	AEG Electrocom Eisenmann Mannesmann Demac Schierholz Siemens Standard Electric Lorenz
France	Alcatel CGA-Hotchkiss Brandt Electronique Serge Dassault Teleflex TITN
Italy	CML Elsag Olivetti
Netherlands	Philips Rapistan van der Lande
United Kingdom	GEC-Avery Pitney Bowes Plessey
Switzerland	Gilgen
Japan	Nippon Electric (NEC) Toshiba
USA	AEG Bell ITT Bell & Howell Rei

Source:CEC

4. PURCHASERS

The largest purchasers of specialised postal equipment are the postal administrations. Private operators and certain large customers have also made substantial investments (although accurate information on the total investment has not been published).

Private operators' sorting machinery relates to their packet/parcel sorting requirements. The larger express operators (and some of the parcel companies) have also invested heavily in tracking-and-tracing systems. Since these are based on bar-coding systems, the same bar-codes can also be used for sorting. Private operators also have substantial materials handling requirements.

Of the large customers, the major investors have been the mail order companies. It should be remembered that, in terms of revenue, large mail order companies are bigger than smaller postal administrations. Because their operations are more concentrated, they can achieve great returns to scale from their capital investment. Mail order companies' primary specialist requirement is for parcel sorting machinery. The result is that mail order companies' operations are often technically more sophisticated than the parcels operations of postal administrations.

5. INVESTMENT BY POSTAL ADMINISTRATIONS

As indicated, financial data concerning capital investments made by private operators and larger customers are not readily available. However, through the Universal Postal Union, some information is available on postal administrations' investment.

Table 5 below shows the investment made by Community postal administrations in the years 1985-1988, and then, to aid comparison, expresses the average investment made as a percentage of the revenue achieved in 1988. The average investment over the four year period is expressed as a percentage of the revenue of 1988. (Because of insufficient data, Ireland and Luxembourg are not included in the EC average.)

Table 5: *Postal administration investment (1985 - 1988)*

MEMBER STATES	INVESTMENTS (millions ECU)				INVESTMENT AS PERCENTAGE OF ANNUAL REVENUE
	1985	1986	1987	1988	
Belgium	23.1	25.7	33.6	23.2	3.4%
Denmark	42.6	26.0	51.3	115.6	5.1%
Germany	337.3	441.8	485.2	504.9	4.8%
Greece	7.9	5.9	1.4	1.9	3.2%
Spain	29.6	61.6	n/a	22.4	3.1%
France	318.6	n/a	133.9	717.2	2.8%
Ireland	n/a	n/a	10.9	n/a	n/a
Italy	580.5	746.0	836.5	327.0	15.2%
Luxembourg	n/a	n/a	n/a	10.0	n/a
Netherlands	116.6	123.5	106.0	250.9	4.8%
Portugal	13.4	15.7	13.5	15.1	9.4%
United Kingdom	2084.5	159.2	227.0	257.0	10.6%
Total	3547.1	1605.4	1899.3	2245.2	6.1%
United States	1090.5	1363.9	1818.8	1,051.1	3.8%

Source: Universal Postal Union (UPU), 1989

A significant proportion of this investment has been made in automated sorting processes. For about half the EC's postal administrations, the "back-bone" of their network is the mechanised sorting centres. Table 6 shows the number of such offices in each administration.

Table 6: *Mechanised sorting centres*

MEMBER STATES	TOTAL NUMBER OF SORTING CENTRES	OF ALL SORTING CENTRES		OF MECHANISED CENTRES	
		MECHANISED CENTRES	MANUAL CENTRES	WITH OCR	WITHOUT OCR
Belgium	17	7	10	6	1
Denmark	12	1	11	0	1
Germany	129	50	79	0	50
Greece	22	0	22	0	0
Spain	85	6	79	6	0
France	131	88	43	70	18
Ireland	8	0	8	0	0
Italy	201	31	170	0	31
Luxembourg	1	1	0	0	1
Netherlands	12	12	0	0	12
Portugal	7	3	4	3	0
United Kingdom	130	80	50	63	17

Source: Sofres study

It should again be emphasised that what is called automated sorting still has, in reality, a significant manual element. Much of the materials handling between processes is carried out manually. Similarly, the "facing" operation is often undertaken manually. If OCR is not used, the encoding of addresses needs to be carried out by the staff. All machines need minders. Because sorting machinery has capacity ceilings, peaks of traffic often necessitate the supplementary use of manual sorting.

6. TRENDS

As would be expected, levels of "mechanisation" differ between the various postal administrations of the Community. The administrations seem to fall into three groups:

- those who had completed their initial mechanisation programme by 1990;
- those who are in the process of mechanising their operations;
- those who currently do not have plans to mechanise their operations.

For those postal administrations whose strategy is to have a network which is "mechanised" to the maximum feasible level, there may be certain junctures when a mechanisation programme appears complete. However, in reality, investment needs to continue. This is partly to replace depreciated plant. More importantly, it is to ensure that the equipment used employs the most appropriate modern technology. Thus, sorting technology has seen first generation equipment replaced by second generation equipment; the latter is now in the process of being replaced by OCR technology. In summary, for such postal administrations, the investment cycle is driven mainly by the need to replace plant which is physically or technically obsolescent, as well as to purchase innovative equipment that can improve quality, and/or reduce cost.

For other postal administrations who have not pursued the same strategy of maximum mechanisation but who are embarked on a mechanisation programme, it will be necessary to decide what proportion of the network needs to be mechanised. For most postal administrations, there is little requirement for "technical inter-operability" in the way that, for instance, different parts of telecommunications network need to be able to inter-operate with one another.

The only exceptions to this are those postal administrations which are attempting to use a single reading of the post-code/address to permit both the outward and inward sorting to take place. While automatic sorting is reliant on the "depth of the post code" (see Annex 10), of the Community postal administrations only the Netherlands and British Post Offices are able to achieve this. (Even for these administrations - particularly for the British post Office - the level of inward sorting thus permitted is not substantial.) The picture may change as OCR technology improves, so that more of the address can be read - even where the post-code is not sufficiently deep to permit automatic inward sorting.

For most administrations, the reality will continue to be that mechanised and manual offices can (and must) co-exist in the same postal network. Postal administrations can therefore examine each sorting centre individually to determine whether it needs to be mechanised. (There may be reduced investment costs per centre if there is a larger mechanisation programme.) There are two criteria that need to be used in reaching a decision: improvement of quality of service and reduction of costs.

Almost all mechanisation will reduce operational labour costs. However, the decision would need to be based on whether the reduction in costs was sufficient to justify the capital expenditure involved. (The calculations will vary not only between sorting centres, but also between countries, since labour costs and productivity levels vary.)

Regarding service, mechanisation does not by itself guarantee improvements, unless allied to careful operational planning and effective network management. While faster sorting times would appear to lead to more reliable deliveries, this might not necessarily be so. In order to maximise the throughputs of mechanised sorting centres, mail is "concentrated" from a wide area. The greater the concentration area, the longer the extra distances involved and, at least theoretically, the greater the danger of loss of quality of service. For the future, the reducing capital costs may permit a trend towards de-concentration (as well as greater flexibility in the planning of technical developments).

This service/cost reduction equation could alter significantly when the potential implications of OCR are understood. Because OCR may permit much higher levels of productivity, there is a much improved possibility of achieving good returns on investment and enhancing quality at the same time.

In the competitive sector, cost effectiveness and quality improvement are also the two criteria which drive investment decisions. However, there, the presence of competition causes these criteria to be more relative: the stimulus is to gain competitive advantage, or to reduce the advantage previously gained by a competitor. What are satisfactory cost/price levels and what is satisfactory service will therefore change, often quite rapidly, over time. What was an extra facility soon becomes a standard feature.

Two examples suffice.

The more well-known example is that of tracking-and-tracing systems which are now becoming increasingly common in the express sector. Increasingly, customers will simply expect this facility to be available as part of the standard service.

The second, perhaps less obvious, example concerns customer service facilities. In order to be able to compete, operators have to be responsive. Thus, they will need to provide prices immediately for all possible routes and services; to give information on how services are routed; to decide on what collection facilities can be arranged. This information was traditionally provided by staff with local knowledge. The growing complexity of customer requirements is now encouraging operators to centralise their customer service operations.

Such demands for tracking and tracing and on customer service necessitate not only highly professional staff (who are an investment in themselves) but also computer systems to provide the information needed. Increasingly, private operators are likely to invest in integrated computer networks (combining tracking and tracing requirements with those of customer service) so that customers anywhere in the territory covered receive the same level of responsiveness.

ANNEX 12: POSTAL ELECTRONIC MAIL

1. INTRODUCTION

Postal electronic mail services are based on the technology of analogue or digital transmission of text and images. In fact, "postal electronic mail" is a general term covering tele-printing services, EDI (Electronic Data Interchange) and a fax service operated by postal administrations, but with bolt-on additions that create added value over a standard fax bureau. For this reason, postal electronic mail is usually described as a "hybrid" service.

Postal electronic mail services have been developed in each EC postal administration. Italy has seen the most successful growth of its service. It also has the largest network. This annex discusses the future commercial attractiveness of postal electronic mail, and addresses the issue of standardisation.

2. DIFFERENT FORMS

There are three main forms of postal electronic mail:

- The text (and/or image) is transmitted to a postal administration operated fax machine close to the addressee. The postal administration then envelopes the message (now in hard copy), and delivers it to the addressee. Normally, the message would have been sent from a fax machine operated by a postal administration, but not necessarily. (It is possible for the postal administration to provide the "outward" service direct to a private fax machine, but this is comparatively rare.)

- In addition to the individual message delivery service described above, postal electronic mail can also be used for bulk distribution of one message. The customer can give the postal administration an address list (usually on tape or disk) together with the message to be sent. Both the message and the list are transmitted to the distant office, which then prints out the message in individually addressed letters. These are then enveloped and delivered. This could therefore be considered to be an electronic equivalent of direct mail.

- EDI (Electronic Data Interchange) operated by postal administrations as a value added telecommunication centre for EDI.

3. COMMERCIAL ATTRACTION

It is clear that postal electronic mail operates in the "urgent message" market, where fax, telex and courier (EMS) services also operate. This market is expanding rapidly (in some sectors at a rate of 20% per year). However, it is not clear whether postal electronic mail will share in this expansion, and become a major service in the postal administrations' portfolios.

The direct competitor to postal electronic mail is ordinary fax and private business EDI terminals. Fax machines are now becoming accepted as essential business equipment. Increasingly, there are installed not on a one-per-company basis, but rather one for each department, down to small groups. This growth has been encouraged by:

- increased awareness (almost up to the level of awareness of telephones);
- the declining costs (down to 170 ECUs in Japan);
- the variability of the postal administrations' quality of service.

To these pressures should be added the general consumer impression that everything ought to happen faster. Negative points about present fax machines may recede.

These tend to concern access to machines either for transmission or receipt of messages (as well as mis-transmission).

- it is already possible to store messages for transmission later;
- Group 4 machines will speed transmission times significantly, as well as reducing mis-transmission;
- the installation of the ISDN network will enable work stations to communicate with each other;
- Electronic Data Interchange will make order and invoice sending more reliable.

These factors tend to suggest that access to private fax machines (or other means of communication with similar benefits) and their capacity will increase. This may take away the main attractions of postal electronic mail - the "universal network" and its capacity. But, frankly, one cannot be sure. Customers may continue to perceive benefits in postal electronic mail. More importantly, postal electronic mail itself may evolve as a result of the developments in electronics and communications.

It would therefore be wrong to "write off" postal electronic mail - particularly since all EC administrations offer the service with some success, most notably in Italy. Indeed, given the present demand, postal electronic mail can be seen as part of the communications infrastructure.

4. DEVELOPMENT OF NETWORKS AND STANDARDS

As described above, postal electronic mail involves the electronic transmission of a message which is then converted into "hard copy", and then delivered as a postal item. It therefore involves two inter-related technical specialisms. These are message handling systems (usually known by the initials MHSs) and physical delivery systems (PDSs).

Each network involves providing access to a system for the message sender and then from the system to the addressee. In the first of these relationships, the sender gains access through the user agent (UA), and his message is communicated into the system through a message transfer agent (MTA).

In the second of the relationships, the system communicates through another MTA to the intended receiver (the latter receiving the message through a different UA). In order for the message to be sent and understood correctly, each UA and MTA must be working to the same protocols. These protocols will cover aspects such as terminal identifiers, start and end signals, and page-break signals.

If a company wishes to set up its own electronic mail network, it can do so by leasing lines from a telecommunications services supplier. It can then use the protocols it chooses for the transmission of messages that it controls. However, problems could arise if this network wishes to communicate with another electronic mail network. If inter-operability is required between networks, some standards are necessary. The normal European standard for electronic mail is the X-400 (and now the more recent X-500 standard). This norm effectively provides the "bridge" between the system architecture (of the MHS) to the actual output (PDS).

It should also be noted that there are different levels of standards. This is illustrated by the example of a customer and supplier in a certain industry sector wishing to use electronic data interchange (EDI) to communicate financial data through an electronic mail network. The electronic mail network might use the X-400 standard for access. The financial data might be presented in the standardised format that conforms with the EDIFACT norm. This might be further refined to a customised EDI format that was used specifically in their industrial sector.

5. POTENTIAL PROBLEMS

All electronic mail operators (whether postal or otherwise) are free to establish their own networks using leased lines, equipment which they choose for their own needs and their own access protocols. However, as noted, this latitude can cause problems later if these same operators wish to have their networks communicating with other networks. The problems may be summarised as follows:

- much equipment and many products do not conform to international standards;
- standards are not detailed enough to guarantee end-to-end transmission, particularly for international connections;
- cross-border inter-operability between national networks is impossible without shared standards (usually international standards);
- standards have evolved separately, and new standards must take into account what the future requirements are likely to be;
- specific applications meeting users' customised requirements are likely to move away from standards.

6. ACTION BY COMMISSION

The Commission is engaged in the implementation of a general Community-wide standardisation policy for telecommunications. Establishing standards for electronic mail is just one part of this overall policy.

The Commission has therefore initiated certain "horizontal" actions, such as in the legal sphere. At the same time, it is investigating the needs of certain market sectors, and, after making a financial analysis of options, recommending solutions to certain problems identified. An example of this overall approach is the TEDIS programme.

Regarding electronic mail in general, and postal electronic mail in particular, one of the options is for network operators to connect to the standard telecommunications networks usually through the X-400 and X-500 norms. Alternatively, electronic mail network providers can link together their own networks through lines which they lease themselves, for which they can use their own access protocols. For the latter, there could be the self-evident problem of inter-operability between the different networks that will have evolved separately.

ANNEX 13: CULTURAL MAIL

1. INTRODUCTION

The Community's publishing and information industries are economically very important. Since it is likely that mail will remain the mass-communication medium for many companies needing physically to convey messages to individuals, mail services will continue to be important for the publishing industry. However, because the publishing industry comprises different segments, the requirements of each segment may well vary.

The collaboration between postal services and the publishing industry is long-standing. It is supported by the desire expressed by the Universal Postal Union to facilitate circulation of "works of the mind" by the possible application of reduced international postal tariffs to books, newspapers, periodicals and journals. Together, these items are loosely called *cultural mail*.

This annex discusses how the concept of cultural mail evolved, and analyses the economic effects of the preferential tariffs often associated with such mail. It then summarises the issues which need to be addressed

2. ARRANGEMENTS

The legislation of certain Member States requires that special and favourable treatment be given to daily papers and similar periodicals in order to promote the right to information implied in the freedom of speech guaranteed by the national constitutions.

This special treatment has also been encouraged by the UPU, as can be seen from Article 20 of the Convention. (See Annex 5 for the full text.) This article (at Paragraphs 8 and 9) suggests that postal administrations may allow a 50% reduction on the full letter tariff to be applied to printed papers (particularly newspapers, periodicals and books), but not to commercial printed papers such as catalogues.

3. THE TERM "CULTURAL MAIL"

The mission to promote freedom of speech and plurality of information implies the need to seek the widest, most effective ways of diffusing men's thoughts. Mail services used to help attain this objective can be termed "cultural mail". It therefore covers items such as newspapers, periodicals, books and journals.

However, the term "cultural mail" has become more and more vague over the course of time. More and more advertising messages are brought under the umbrella of culture. Publications which are effectively marketing devices are increasingly trying to enjoy the preferential tariffs that had been intended for publications of a purely cultural nature.

4. PREFERENTIAL TARIFFS

In most Member States the preferential tariff (or special rates) for daily papers and periodicals was introduced in the past as a political decision, for example with the intention of enhancing the multiformity of the press. Such special rates were at first limited to papers which could influence public opinion on political matters. Later it has been extended to include papers giving information of a general cultural nature.

When these preferential tariffs were introduced, the postal administrations were part of their respective governments. Each of the governments that decided that its postal administration should offer such tariffs was effectively deciding that there should be a government subsidy for the daily papers and periodicals that were delivered at the reduced rate.

The extent to which such subsidies were granted can be seen in the rates applied in the various Member States. There are considerable differences in this regard. The rates in Spain, for example, are very low. (See Chapter 4, Paragraph 8.4, Table 17.) They can also vary over time: as the German postal administration seeks progressively to decrease the scale of the subsidy, the subsidy has reduced from 72% of costs to the present 44% (with further reductions planned).

In general, standard postal services are operated on small profit margins or at a loss. For those administrations that offer them, the preferential tariffs cause the prices to be loss-making. Table 1 shows the stated financial position for printed paper services in 1985/86. (Although somewhat historical, these figures indicate the general financial position.)

Table 1: *Printed papers: percentage coverage of costs (1986)*

MEMBER STATE	PERCENTAGE
Belgium	18,5%
Denmark	51,9%
Germany	54,1%
Greece	96,5%
Spain	< 10%
France	33,3%
Ireland	100%
Italy	< 10%
Luxembourg	19,5%
Netherlands	75%
Portugal	40%
United Kingdom	100%

Source: Universal Postal Union (UPU)

For postal administrations, it is not simply a matter of prices for printed papers perhaps being set below standard rates similar items (that is, for letters). At the same time, printed papers tend to be bulky items, which usually cost more than letters to

process. For example, many magazines are posted unfolded in A4 size envelopes or covers. One administration found that such items cost 50% more to process than the same item posted in a more traditional "letter" shape (assuming that the contents could be folded). Newspapers can be even more expensive to process since operationally they are given LC or first class treatment (or, in some cases, a special treatment above even these "streams").

The nine administrations which provided figures showed a combined loss on their printed paper services of ECU 964.2 million.

One consequence of these low rates is that they could have the effect of distorting competition. The lower the rate, the less interesting it is for private carriers to operate in this field. This competition-distorting effect could be one of the reasons for introducing commercial rates within the European Community, allowing for possible differences between countries because of different costs. But it must be continually taken into account that the tariffs for newspapers and periodicals should be set equitably so that fair competition is possible between all postal providers.

It would seem preferable for postal administrations not to provide the publishing industry with a service at a price below the costs. It would therefore seem more effective to find methods other than the preferential postal tariffs to provide government aid to the publishing industry. A possible solution could be transparent state subsidy. If paid to the postal distributor, such subsidies should be available equally to both postal administrations and private operators.

5. IMPORTANCE OF MARKET

By far the largest part of the cultural mail market is the publishing sector. This comprises newspapers, magazines and books. For the future, the definition probably ought to be broadened to cover modern methods of storing information for distribution (such as CD and video), but here the term "publishing" is used as a general description of the providers of material sent as cultural mail.

For most postal administrations, the publishing industry is the largest single business sector. Table 2 shows what proportion of inland mail is made up of newspapers and magazines.

From figures provided by the Fédération Internationale de la Presse Periodique (FIPP), it is estimated that the total number of items distributed by mail in the Community is 15.2 billion units annually. Of these, some 14 billion are for domestic delivery, and a further 1.2 billion for cross-border delivery. (The average circulation is calculated to be between 25,000 and 30,000 subscribers per title, although the statistical deviation around this average is very high.)

In addition to its economic importance, the publishing industry (and, in particular, the "press") is also very influential. Individual titles can have an influence out of all proportion to their postal volume, in terms either of approaches directly to the postal administration concerned or indirectly perhaps via the government. In addition, the influence of publishers is often expressed effectively through trade associations..

Table 2: *Cultural mail - proportion of mail*

MEMBER STATE	% OF DOMESTIC MAIL	AMOUNT IN MILLIONS OF ECU
Belgium	22.0	183.2
Germany	11.5	237.7
Denmark	29.3	19.9
Greece	24.5	0,007
Spain	3.1	N/a
France	11.8	466.7
Ireland	N/a	N/a
Italy	35.7	N/a
Luxembourg	23.5	1.31
Netherlands	12.5	42.5
Portugal	11.0	12.9
United Kingdom	3.0	N/a

N/a = not available

Source: CEC

6. THE FUTURE

Certain trends are noticeable in the printing and publishing sectors. They are undergoing a period of significant concentration of ownership, the numbers of proprietors being reduced. This concentration must have an implication for the influence of the press (for instance on postal administrations), but it is difficult to predict what it will be.

Present technology makes available shorter print runs, enabling publishers to produce magazines for small market segments. Specialised magazines with small circulations are often heavily reliant on postal distribution. Another (external) trend which will have an indirect effect (as competition) on publishing is the multiplication of the televisual media.

In the light of these trends and, indeed, of the financial difficulties that the preferential tariffs may cause, there seems to be a consensus that the following issues should be studied and solutions developed.

Firstly, the present scope of the definition of cultural mail seems to have moved significantly beyond the original concept - that it concerned only the independent press. In this context, it should be noted that clearer definitions of both newspapers and periodicals are needed.

Secondly, it should be recognised that different tariff policies applied by different postal administrations (and possibly influenced by their governments) have led to wide variations in tariffs for similar services (certainly far beyond cost differences). It

needs to be recognised that these variations can themselves cause distortion of competition.

Thirdly, a harmonised approach is needed towards quality of service. Threshold standards should be applied, and a consistent quality measurement system put in place.

Lastly, and very importantly, efforts should be made to simplify (and make more similar) the access conditions for posting with the different postal administrations. Particular attention should be given to resolving any present conditions that can act as barriers to trade or as distortions of competition.