

EASIER CROSS BORDER PAYMENTS : BREAKING DOWN THE BARRIERS

SOURCE DOCUMENTS

**Report of the Payment Systems Technical Development Group (PSTDG)**

Appendices to the PSTDG report:

1. Terminology
2. Infrastructures
3. Standards
4. Legal Issues
5. Guidelines on Competition
6. Reporting Requirements

**Report of the Payment Systems Users Liaison Group (PSULG)**

Appendix to the PSULG Report

1. Guidelines on remote payments

**Working Papers**

- Systemic risks and supervision
- Telecommunications dossier



COMMISSION  
OF THE EUROPEAN  
COMMUNITIES

20 February 1992  
Final

DIRECTORATE-GENERAL  
FINANCIAL INSTITUTIONS AND  
COMPANY LAW

Application of Community Law  
XV/1

REPORT OF THE  
PAYMENT SYSTEMS TECHNICAL DEVELOPMENT GROUP  
TO SIR LEON BRITTAN, VICE PRESIDENT OF THE COMMISSION

---

## CONTENTS

### 1. REPORT

<u>Subject</u>	<u>Paragraphs</u>
A. Introduction.....	1 - 6
PSTDG's goals and work programme.....	7 - 13
B. Stock-taking exercise :	
- volumes.....	14 - 23
- charges.....	24 - 25
- infrastructures.....	26 - 34
C. Key issues to be addressed:	
I. Standards.....	35 - 48
II. Telecommunications.....	49 - 55
III. Legal issues.....	56 - 66
IV. Competition policy.....	67 - 75
V. Access.....	76 - 93
VI. Systemic risk and supervision.....	94 - 98
VII. Reporting requirements.....	99 - 106
VIII. Data protection.....	107 - 119
D. The possible ways ahead :	
- Determining factors.....	120 - 123
- Correspondent banking.....	124 - 126
- Linkage between ACHs and equivalent systems.....	127 - 150
- Direct debiting, cheques and cards.....	151 - 155
E. Next steps.....	156 - 166

### 2. APPENDICES

<u>Subject</u>	<u>Number</u>
- Terminology.....	1
- Infrastructures.....	2
- Standards.....	3
- Legal issues.....	4
- Guidelines on competition.....	5
- Reporting requirements.....	6

## A. INTRODUCTION

### The September 1990 Discussion Paper and reactions to it

1. The Commission issued a Discussion Paper entitled "Making payments in the internal market" (COM(90)447) on 26 September 1990. This paper set out ideas for improvements in the main categories of cross-frontier payments and invited responses from interested organisations by the end of 1990.
2. There was a widespread consensus among commentators that present payment systems did not provide arrangements for retail cross-border payments (RCBP) which met the standards of speed, certainty and economy that characterised purely domestic payment systems, and which would be needed under full EMU. (A variety of factors were adduced to explain this situation including the fact that domestic payment systems in some Member States were significantly less efficient than in others). Some suggested that these inadequacies typified regular (i.e. recurrent, periodic) as well as "one-off" (i.e. spontaneous) remote payments (remote signifying that only the payment crosses the Member State's border). It was generally acknowledged that face-to-face RCBP - where the user from one Member State is physically present at the place of payment in another Member State - presented fewer problems. It was difficult to forecast the demand for RCBP services. However, the complete opening of frontiers to trade in goods and services and to the free movement of persons, would certainly be accompanied by an increased demand for more convenient payment services. While this demand would be driven primarily by the growth of trade in goods and services it could also be responsive to any reduction in charges and/or the time taken to effect such payments.
3. Consumer groups emphasized the need to strengthen consumer protection, by e.g. implementing measures to increase the transparency of the conditions (e.g. charges, time-spans) associated with RCBP. The banking industry also recognised that consumers were not well informed regarding the merits of the different instruments that could be used for RCBP (e.g. cards and cheques) and that many consumer complaints would be eliminated where customers to be better advised regarding the different alternatives available to them.
4. A series of issues which would have to be addressed in order for improvements to be effected in RCBP systems (RCBPS) - and in some cases domestic payment systems - were identified, including : legal uncertainties, the lack of standardisation, the dearth of data regarding current, and expected future, volumes of RCBP, and the unpredictability of further progress towards EMU. Several of these related to differences in public policy between Member States and/or could only be removed by public intervention.
5. Most of the comments received on the four categories of payment described in the paper related to one particular means of remote RCBP credit transfer orders (henceforth referred to as transfers). Bankers generally agreed that improvements to retail cross-border transfer systems were technically feasible; however, several were sceptical as to whether the substantial investments which it was suggested were needed

for this would yield a sufficiently high rate of return, given the low level of demand in the foreseeable future for such transfers. This viewpoint was questioned by other commentators who pointed to the fact that some banks<sup>(\*)</sup>, and groups of banks, were already developing, or even offering, new improved systems for them. The majority of commentators were willing to work with the Commission on a detailed study of the technical, and economic feasibility of various improvements to retail cross-border transfer systems.

6. A Communication on "Making payments in the Internal Market" was then presented by Sir Leon Brittan and Mr. Van Miert to the Commission on 19 March 1991. This recommended that the expertise of both public and private sectors be harnessed in order to ensure rapid and effective follow-up work. In order that this work be efficiently conducted, it proposed that two groups be established. The first of these - the Payment Systems Technical Development Group (PSTDG) - would focus on technical issues relating to the infrastructures used for RCBP, while the second group - the Payment Systems Users Liaison Group (PSULG) - would consider the questions of what services, and forms of consumer protection, would be required by "users" within the Internal Market.

#### The PSTDG, its goals and work programme

7. The PSTDG started its work in April 1991. The seventeen members of the Group were drawn from the credit industry (4 from commercial banks, 2 from savings banks, and 1 each from the cooperative banks, the Girobanks, and third country banks), 2 from organisations related to the credit - in particular the payment - sector (APACS, ECU Bankers' Association) and from central banks (6 members nominated by the Committee of EC Central Bank Governors). The Group was chaired by the Commission which also held the secretariat. The Group held monthly meetings until February 1992 (9 meetings altogether). It based its discussions on working papers many of which were written by individual members of the groups or organisations represented by them. Group members participated throughout in a personal capacity. As a result this report, which conveys the findings of the Group to the Commission, does not necessarily reflect the positions of members' organisations on the issues raised. In particular the participation of central banks does not commit specific central banks, or the Committee of EC Central Banks in any way. The report outlines the consensus, and not necessarily the unanimous, view of the Group on the topics covered and it cannot be assumed that every Group member agrees with each conclusion reached therein.
8. The Commission's underlying belief is that in the long-run the payment systems used for RCBP in the Community, should be as efficient as the most efficient systems for domestic payments within Member States are. In the short-run, the aim should be to ensure that problems with RCBP systems do not lead to such systems slowing the momentum behind the Single Market programme, and being unable to adequately cope with the increased demands for RCBP associated with the progress towards EMU. The function of the PSTDG was therefore to advise the Commission on the steps that could be taken in order for these objectives to be realised. It would therefore be consulted, in the words of the Decision

---

(\*) The term bank is taken to include all Girobanks in this report.

establishing the Group "on questions relating to the integration of payment systems of the technical kind, in particular on the feasibility of and requirements for linkages between clearing systems, on matters of organisation, costs, standardisation and similar aspects".

9. The scope of the Group's work was defined as follows : it would concentrate on systems used for retail cross-border payments, and the Ad Hoc Working Group on EC Payment Systems, established by the Committee of EC Central Banks Governors, would primarily focus on large value payment systems in the Community in the light of the Single Market programme and EMU. (The latter group has been commissioned to report to EC Central Bank Governors in May 1992.) It was considered that this well-defined division of labour, together with cross-membership between the two groups, would avoid any unnecessary duplication of work. However, it was acknowledged that certain issues - e.g. public policy regarding competition and access - were common to both groups and would therefore be discussed in both fora. It was noted that the agreements reached in Maastricht in December (towards the end of the Group's life) particularly those relating to the role of the European Monetary Institute and the European Central Bank, had important implications for the future involvement of particular Community institutions in the area of RCBPS. Such implications were not explored by the Group, which concentrated mainly on the need for action in this field by all parties concerned, and less on the allocation of responsibility between institutions.
10. Within RCBP it would focus on remote payments, especially electronic funds transfers, rather than face-to-face payments. However, all RCBP would be covered by the Group to some extent, e.g. in establishing the size of the market and in addressing the key issues listed in paragraph 12 below.
11. The Group's work programme was divided into three parts. The first related to the need for providers of RCBP systems to have better information on the size of the overall markets that they were serving and the infrastructural developments that were underway. In particular the Group would seek to ascertain the current volume and value of the main types of RCBP, to forecast future volumes and values, and to quantify the costs associated with such payments. It would also examine the type of RCBPS that were currently in use, or planned.
12. Second, the Group would consider a series of key issues which would need to be addressed if RCBPS were to be significantly improved. These issues related to :
  - the standards used in RCBPS;
  - telecommunication infrastructures;
  - differences between Member States' national legislation regarding payments;
  - European Community (EC) competition policy;
  - EC legislation concerning access to, and membership of, RCBPS;
  - the systemic risk in, and reflecting this, the regulation of, RCBPS;
  - the distinction in most Member States between resident, and non-resident accounts, for reporting purposes;
  - the Commission's proposed legislation on data protection.

Each of these issues is discussed below. Several of them, e.g. standards, have an important third country dimension, which is referred to in the sections on these particular issues.

The identification of promising ways of improving RCBP systems - including the possibility of linking automated clearing houses (ACHs) or equivalent systems - was viewed as the third component of the Group's work programme.

13. Three of the papers submitted by Group members in the light of this work programme - i.e. those on infrastructures, standards and legal issues - are included as Appendices to this report, together with three by the Commission on terminology, guidelines on competition and reporting requirements. Other papers submitted to the Group on systemic risk and telecommunications are available from the Commission.

**B. STOCK-TAKING EXERCISE**

**Volumes**

14. Data relating to RCBP are collected neither by the public authorities nor the banks that facilitate such payments. Thus, the exercise by the European Banking Federation to collect data on such payments - in response to the Commission's invitation to do so - represented a path-breaking step. Paragraph 15 spells out the health warnings attached to the figures that they produced - which are set out in Tables 1 to 3 - while paragraphs 16-19 sets out the tentative conclusions that can be drawn from them.

**Caveats**

15. The data provided are not strictly comparable across, and sometimes within, Member States, due to differences in the definitions used (e.g. that for retail) the absence of a breakdown between EC and non-EC data in some cases, and differences in the reliability of the data (e.g. some are merely estimates). Finally, it should be noted that as each country includes both remittances and receipts amongst its own figures for RCBP, any estimate of total Community RCBP should be half the sum of such individual Member State totals, and not their aggregate.
16. Table 1 shows the volumes of remote, and face-to-face, retail payments from, and to, four large Member States. Face-to-face payments dominate such payments, accounting for three quarters of their total. Within face-to-face payments, cards are much more important than Eurocheques, except in Germany where Eurocheques are widely used. Total RCBP represent less than 1% of domestic payments in France and the UK, but about 2% in Italy.

**TABLE 1 : MAIN CHANNELS OF INTRA-EC RETAIL CROSS-BORDER PAYMENTS**  
(mns of transactions unless otherwise stated)

		Remote		Face to face		Total retail	Addendum
	Threshold	Credit transfers	Cheques	Eurocheques	Cards		All cross-border paym./ all domestic paym. (%)
France	10 KF	3.6	3.7	6.0	22.9	36.1	0.6
Germany	DM 5.000	6.2	1.9	16.4	11.6	36.1	0.5 *
Italy	Lira 3 mn	2.4	n/a	3.3	8.7	14.4	1.8
UK	[£ 1.000]	4.6	5.8	5.0	24.8	40.2	0.8

\* All intra-EC cross-border payments form the numerator.

17. Table 2 overleaf shows intra-EC cross-border payments by cheques, cards and transfers as a proportion of domestic payments using the same media. (Where an intra-EC figure is not available total cross-border payments have been used.) The final column shows total intra-EC cross-border payments as a proportion of total domestic payments. The figures are markedly higher in the smaller Member States - e.g. Belgium and Greece - than in the larger ones such as the UK and France.



**TABLE 2 : MAIN CHANNELS OF INTRA-EC CROSS-BORDER PAYMENTS**  
 (proportion of intra-EC, in total (including domestic) payments via  
 the channel in question - brackets indicate that intra-EC data are  
 unavailable and all cross-border used instead)  
 All figures are percentages

	Transfers	Cheques	Cards	Total
Belgium	3.4	[1.5]	[10]	4
France	0.5	0.1	1.9	0.6
Greece	15	12	12	12
Italy	0.8	0.5	[24]	n/a
Netherlands	[0.17]	[8.6]	[53]	[2.8]
Portugal	14.7	1.5	21.3	1.8
UK	0.5	0.4	2.7	0.8

18. Finally, Table 3 focusses on retail cross-border transfers in the EC. The definition of retail that is used varies between Member States, ranging from 1.400 to 2.500 ecu. The aggregate of such transfers is around 35 million for the 7 Member States concerned. Retail cross-border transfers in the EC account for a high proportion - i.e. around a half - of all cross-border transfers involving these Member States. However, they are dwarfed by total domestic transfers, amounting for only 0.2% to 0.5% of domestic transfers in the 4 largest countries in Table 3, though higher proportions in smaller Member States (e.g. 2.3% in Belgium). The figures in the final column of Table 3 are of some global ones and conceal the fact that transfers between contiguous regions of different Member States are often a significantly higher proportion of total (including domestic) transfers from such regions than the figure in the final column for the Member State as a whole. This caveat applies to all types of RCBP.

**TABLE 3 : INTRA-EC RETAIL CROSS-BORDER TRANSFERS (RCBT)**

	Threshold (ecu 000)	Volume of RCBT (mns)	RCBT/all* CBT (%)	RCBT/ all* transfers (%)
France	1.4	4	50	0.3
Germany	2.5	8	65	0.2
Italy	2.0	2	40	0.5
Luxembourg	2.4	2	61	n/a
Netherlands	2.1	4	40	0.3
UK	1.4	5	40	0.5
Belgium **	2.4	11	69	2.3

\* All, not simply intra-EC, cross-border transfers.

\*\* All retail cross-border payments, not simply intra-EC payments are included for Belgium and the Netherlands.

19. The main conclusions from Tables 1 to 3 are that :
- retail cross-border payments within the EC currently represent a very low proportion of total transfers in these countries, especially in the large Member States;
  - retail cross-border transfers within the EC comprise a substantial proportion - around half - of all cross-border transfers;
  - remote cross-border payments are less common than face to face payments;
  - face to face cross-border payments involve mainly cards.
20. Tables 1 to 3 are primarily concerned with intra-EC payments. The data for certain countries within the European Economic Area, e.g. Sweden, show that the volume of RCBP involving such countries and the EC is significant and would therefore form a significant part of any global estimate of the volume of RCBP involving EC members. Of course, any review of the volume of EC retail cross-border payments would include payments involving all third countries (whether within the European Economic Area or not) but such data are scarcer than those pertaining simply to the EC.
21. In the extremely short-timespan allowed, the European Banking Federation and Group members were unable to collect time-series data on volumes. However, figures supplied by Eurocheque show a slight decline in cheques involving both EC and EFTA countries between 1988 and 1990. The main reason for this was the cross-border opening of ATMs to Eurocheque cards. Not surprisingly the number of cross-border ATM transactions based on Eurocheque cards increased markedly over this period. Expenditure by Eurocard and Visa card holders, outside the country of issue, rose sharply over the period from 1988 to 1990.

#### Forecasting future volumes

22. It is extremely difficult to forecast future volumes for various reasons including the following : there is no solid base (in terms of existing volumes) to build upon, and economic forecasting models focus on a small number of macro-economic variables and therefore do not pick out variables such as intra-EC RCBP. Notwithstanding these and other difficulties, the Group considered what might happen to the volume of such payments. Their tentative conclusions were as follows : the rapid growth in intra-EC trade, associated with the Single Market, that is forecast for the next few years will drive upwards the volume of RCBP within the Community. The "Single Market effect" arises not simply from the removal of existing barriers to the free movement of goods and services, but also to that of labour and capital. A further stimulus will come from the move towards EMU, especially the expected reduction in intra-EC currency risk associated with this, and the removal of this risk altogether that will come about when individual EC currencies are replaced by a single EC currency, by 1999 at the latest. However certain factors, such as tax harmonisation, will serve to depress the growth of such payments and there is therefore unlikely, ceteris paribus, to be a dramatic surge in such payments.

23. The most important factor missing from this analysis is the elasticity of the volume of RCBP to the charges made for them. It is considered likely that improvements in infrastructure which reduce such charges, and indeed improve the other terms (e.g. time-spans) associated with them, could lead to a rise in volumes. However, it is difficult to quantify with confidence how large this effect would be.

#### Charges

24. Data relating to charges typically levied on transfers of ecu 1.000 in 10 Member States are summarised in Table 4. It should be noted that the sample of banks in the survey was small; in addition individual banks are free in most countries to set their own charges and may accordingly levy charges significantly different from these. What emerges is that these charges may vary markedly between banks - in the same, as well as in different, Member States - and that they account for a significant percentage - i.e. 1% to 4% for outgoing payment orders depending on whether the customary or the urgent procedure is used (see Table 4 below) - of the value of such payments. By contrast, the charges for domestic transfers of the same magnitude are negligible. The charges on cross-border transfers of ecu 1.000 are divided between commission to the banks concerned, transmission charges, taxes (VAT, plus in some Member States fixed-rate taxes) and foreign exchange commission. The rate currently used for the latter component of the charges varies around an average of 2% on the amount of the outgoing order and a minimum amount of between ecu 2-5. The foreign exchange commission amounts to a small proportion only of the overall charge with regard to such transfers. (This component will of course disappear in the case of intra-EC cross-border payments when a single EC currency is introduced.)

TABLE 4 : CHARGES IN ECU ON OUTGOING CROSS-BORDER PAYMENT ORDERS  
OF ECU 1000 (ALL CHARGES PAYABLE BY THE REMITTER)

Customary procedure	Urgent procedure	Part of charges represented by foreign exchange commission
8 - 17	16 - 39	2 - 5

25. During the Group's discussion it was noted that banks are increasingly charging their customers the full cost of providing RCBP (and indeed all other) services. Formerly they often cross-subsidised them with profits made by providing other services.

#### Infrastructures (see Appendix 2)

26. In order to find out what was actually happening, or being planned, in the field of RCBP systems, the Group invited several organisations active in this field to make presentations to the Group. These organisations included the Confédération Internationale du Crédit Populaire (CICP) Bank of Scotland, Eurocard International, the European Savings Banks Group, the Society for Worldwide Interbank Financial Telecommunications (SWIFT) and Visa.

27. Paragraphs 28-34 below summarise the Group's discussions on infrastructures taking into account, inter alia, Appendix 2 on infrastructures and the presentations made to the Group.

#### Recent developments

28. Several new systems have been introduced, with the specific purpose of facilitating RCBP in recent years. The TIPA (Transfer Interbank Payments Automated) system of the Caisses Centrales des Banques Populaires (CCBP) provides one example. This is based on agreement between member banks on common standards/formatting arrangements for file transfers between different countries, a payment systems "esperanto" in effect. The TIPA scheme is essentially an example of a "bank to bank" scheme (see category (c) in Appendix 2). The Bank of Scotland's Trans-continental Automated Payment Service (TAPS) provides another example of an operational, bank to bank, system. In this case the Bank of Scotland transfers payment orders into the shape (format, etc.) required by the clearing system in the country of the receiving correspondent bank, which then transfers funds to the beneficiary's account in that country.
29. Both these schemes - operational before the Commission's Discussion Paper appeared in September 1990 - involved a long gestation period. Neither are designed simply for EC Member States, but aim to provide a world-wide service. (The Group consider that infrastructures must be able to deal with RCBP to, and from, third countries, if they are to be successful.) Numerous other schemes, e.g. the Royal Bank of Scotland's IBOS, exist, which are based on automated correspondent banking.

#### Schemes in the pipeline

30. There are numerous other schemes in the pipeline. Some involve closed networks which offer added value services (e.g. currency conversion and settlement). The Giro network, which will be operational in 1992, provides such an example.
31. Both Eurocard and Visa are investigating whether it would be feasible to adapt infrastructures used for card operations to deal with remote retail cross-border transfers. Visa e.g. note that the infrastructure underpinning their card operations in the US has been used to establish an ACH, and consider that it might be possible to undertake a similar exercise in Europe. However, they also observe that the European situation is significantly different to that in the US (e.g. twelve currencies exist as against one in the US). The feasibility of an alternative method (to that of setting up a European ACH) of utilising their card infrastructure for remote cross-border transfers is already being examined in detail. This relates to the possibility of providing an "International Money Transmission Service". This service, which could be operational by late 1992, would not require the beneficiary involved in a remote transfer to have a Visa card, but would require that the paying bank was informed of the beneficiary's name and account number. The intention is that the period between the time a payment order is submitted by the payer, and funds subsequently being made available to the beneficiary, be a maximum of five days. This service will be especially useful for non-urgent, one-off, low value (under ecu 2.000 approximately) payments. This Visa scheme also highlights the point that since there are various types of RCBP, the demand to make them may optimally be satisfied via a variety of systems, each designed primarily for a particular segment of the overall market.

32. Other work in train includes that by SWIFT, which is investigating alternatives to the MT100 message format commonly used for RCBP, in particular facilities for bulk messages and EDIFACT. SWIFT's work in this area carries potential benefits for several types of RCBP systems - e.g. it could lead to more efficient correspondent banking, or be employed in any system based on linking ACHs.
33. Various other organisations are considering what more they might do in the area of RCBP. This category includes Eurocard International and the European Savings Banks Group. In addition several Scandinavian banks (including some from Denmark) are examining a proposal to offer RCBP services, using a variant of the ACH to ACH model.
34. The Group's analysis, and recommendations, concerning the factors that impede the private sector's efforts to provide more efficient infrastructures for RCBP, are set out in paragraphs 35-119 below. There is unanimous agreement that work in this field, by inter alia the Commission, will be conducive to the cause of establishing better RCBP systems.

C. KEY ISSUES TO BE ADDRESSED

I. Standards (see Appendix 3)

35. In order to assess whether the lack of appropriate standards presents an obstacle to the development of RCBP systems which can meet the needs of the post-1992 internal market it is helpful to distinguish between three types of standards : technical, applications, and operational, standards.
36. Technical standards are typically inter-sectoral, i.e. they apply to more than one sector. A technical standard can be set at a number of levels - international, regional or national - but at all levels will be in the public domain. Essentially a technical standard relates to a generic part of the infrastructure which supports payment systems. That is to say that the standard applies to something which is not only used in payment systems, but which also applies to systems in other sectors. An example is the standard for the magnetic stripe material used as a storage medium on payment cards, and other plastic cards. There may be more than one agreed standard for any particular aspect of the system and users will decide which to apply.
37. Application standards are not inter-sectoral, but can be agreed at two levels. The first relates to standards that cover the requirements of one sector and are developed by that sector for its use alone. Examples are cheque codeline formats or magnetic track data formats. The second level is a system specific standard, perhaps better known as a specification developed by the members of a particular system for application only within that system.
38. Operational standards cover the agreements which have to be reached, upon the operation of individual systems, e.g. relating to legal matters (e.g. such as requirements regarding evidence) and issues such as procedures, service levels, settlement, membership criteria, etc. Such standards are primarily the concerns of members of each payment system.
39. Appendix 3 provides a description how each type of standard is created; it also identifies the areas in which changes in standards are either in train, or likely to be needed, for each of the main channels of cross-border payment are identified. The focus of the report in Appendix 3 is on technical, and applications, standards on the basis that operational standards can largely be left to the members of specific payment systems. However, several Group members considered that certain operational standards could usefully be agreed at a wider, e.g. European, level.
40. The main European Credit Sector Associations have set up a Committee on European Banking Standards (CEBS). This will produce proposals to CEN (Comité Européen de Normalisation) on public domain technical standards, and create sectoral application standards - some of which will also be in the public domain. Its objective in this will be to meet the needs of the European banking industry, taking into account the international situation in this area. The Group considers it appropriate and important that this body be accepted as a banking sector "Associated Standardising Body" (ASB) by CEN, once such acceptance had been formally requested by the CEBS. CEN's response to such requests is determined mainly by the advice it receives from DG XIII of the European Commission.

41. The participation of the European banks in the work of ISO, UN/EDIFACT, CEN, and now the CEBS indicates that the industry is capable of ensuring that the standards necessary for improved payment systems will be produced in good time.
42. During the discussion of Appendix 3, various additional points were made. First, the Group emphasizes the importance of securing compatible world-wide agreements on standards. The nature of the liaison between the CEBS (under the auspices of the CEN) and ISO would be crucial in this regard. The ability of European banks to achieve this goal would be enhanced considerably were the CEBS to allow the membership of countries within the newly established European Economic Area.
43. Second, they note that the struggle to win acceptance for those standards used for transfers is less commercially sensitive than it is in the sphere of plastic (especially chip) cards.
44. Third, they observe that the level of agreement on standards should also be seen in conjunction with competition policy - e.g. the acceptance of one bank's/group of banks' technical and applications standards, could put it at a competitive advantage over its rivals and thus reduce competition.
45. Fourth, regarding the question of whether to concentrate work on technical or application standards, some Group members assign a higher priority to securing agreement on application, than on technical, standards, as software is available which can link systems based on different technical standards. However they also note that such linkage can be prohibitively costly.
46. The ways in which different domestic formats can be reconciled are explored in part under the section on ACH linkage below and Appendix 2 on infrastructures. The main problem is that translation into a common international format, e.g. SWIFT(\*), requires that the latter format includes all relevant information in the domestic format, and vice versa. SWIFT is seeking to widen its format to this end. The adoption of EDIFACT is considered a long-term solution in this area, which is not relevant to the Group's main goal of identifying short-, to medium-, term, means of improving RCBP systems.
47. There was a consensus that while further agreements on standards are not a sine qua non for the development of improved RCBP, they would be extremely conducive to such developments. Their benefit would be magnified to the extent that they were accompanied by improvements in other areas, e.g. clearing and settlement. However, even without such assistance they could reduce the costs of RCBP. Thus the cost of data capture/editing - which represents the bulk of the costs of international transfers, partly because it is done manually - could be reduced through the application of uniform standards, which facilitate automation. Early agreement on standards concerning :
  - bank identification codes (including any necessary consideration of individual account numbers;
  - message formats;
  - and, possibly, a "European test key" that allowed incoming payments to be handled automatically without any manual input;would be especially useful.

---

(\* ) It should be noted, however, that SWIFT exclude certain Girobanks.

The suggestion that account holders should put their account number (and bank) on their notepaper was also put forward, however, it was agreed that this particular idea required further examination (e.g. regarding its security implications), before the Group could take a collective view on it.

## Conclusions

48. The Group concludes that while the infrastructures required to secure the necessary degree of agreement on technical/application standards are in place, certain priorities are already visible and ought to be underlined. These related to those standards which would facilitate the automation of the routing, and processing, of RCBP including those :

- allowing the customer, his bank and the account, to be identified (bank identifier codes);
- used for credit transfers and direct debiting.

By contrast, the need to standardise cheque codelines should be accorded a low priority.

In addition the CEBS should be rapidly accorded ASB status by CEN once it has requested such status.

## 11. Telecommunications

49. The cost of telecommunications required in order to facilitate RCBP can represent a significant proportion of the total costs of such payments - for example 10% to 20% for an ecu 100 cross-border transfer. This proportion is much higher than it is in the case for most other financial services (including those relating to the provision of large-value, cross-border payment services) and indeed non-financial services. It is therefore clear that improved efficiency in the telecommunications sector could have a major effect on the cost of RCBP. The efficiency of the sector also has implications for the time-spans (including the variability) of RCBP. It should also be noted that the efficiency - broadly defined - of a particular RCBP systems, may be significantly impaired if the telecommunication sector in one of the countries participating in the system, is significantly less efficient than in other participating countries. For this reason, there is an incentive to omit such "laggard" countries from participating in the system in the first place.

50. In practice, the market for telecommunication services is far from being a perfect one - in reflection of this :

- costs (tariffs) for users vary considerably between different categories of users (e.g. business and consumer users) and between countries;
- it is sometimes difficult, if not impossible, to use the equipment that is most appropriate for a participant in a particular RCBP system;
- the quality of service is mixed and it is therefore extremely difficult for banks to know the costs/time-spans of facilitating RCBP in advance;



- banks must deal with numerous bodies for administrative purposes, even though it would be much more efficient for them to interface with a single entity for such purposes;
- governments in different Member States levy different rates of tax on telecommunication services, exacerbating disparities in costs between such States.

51. The question therefore is what can be done to produce a more efficient market in telecommunication services.

### Conclusions

52. The Group sees more competition, including deregulation, as providing a large part of the answer. Certain Group members attest to the beneficial effect of those liberalising steps that have already been taken - often at the instigation of the Commission - in their countries. They are encouraged to see that deregulation continues to represent the EC official policy in this sector - see e.g. the "Guidelines on the Application of EEC Competition Rules in the Telecommunication Sector" (C(91)1437 final). They consider it extremely important that EC competition policy (enshrined in Articles 85, 86 and 90 of the Treaty) is effectively enforced. Several benefits would accrue to banks were such policies to be pursued; they would be supplied with more appropriate levels of technology at economic prices; in addition, telecommunication providers would be prevented from establishing standards systems (e.g. in the area of plastic chip cards) that are incompatible with standards used by banks, and thereby place such providers at an unfair advantage over banks in the market for the payment services concerned.
53. Finally, it is important in this area of payment systems (as indeed in other areas), that standards are agreed on as early as possible, if significant cost savings are to be realised. The changes in the infrastructures used for setting standards set out in the standard section of this paper - notably the acceptance of the CEBS as an ASB - would clearly be helpful in this regard.
54. Looking forward, some see the provision of a public, interlinked, international telecommunications network, based on open network provision rules (on the lines of Directive 90/387) as being the ultimate objective.
55. As well as supporting the broad proposals set out above, some Group members recommend that a code of conduct be established for telecommunication providers, which is divided into a general section (recommending, inter alia, the acceptance of ONP) and one focussed more particularly on the needs of the financial sector.

### III. Legal issues (Appendix 4)

#### Introduction

56. The Group considered a range of legal issues which might to a greater or lesser extent affect the creation of cross-border payment systems. This was done on the basis of Appendix 4.

57. The legal issues examined all stem from the fact that cross-border payments involve the legal systems of at least two countries. Combined with the fact that a number of differences exist between the laws of Member States, affecting payments, this means that there is scope for problems caused by legal uncertainty and by inconsistent or conflicting laws. For the purpose of analysis a distinction is drawn between payment instruments and payment systems.

58. A summary of the issues is set out in the rest of this paragraph.

#### Payment instruments

##### Cheques

- General differences exist between Member States adhering to the Geneva Convention 1931 and others and (to a lesser extent) differences between Geneva Convention Member States on certain questions.
- There are different rules concerning the rights of the bearer over the funds in the drawer's account.
- Different rules on stopping payment of cheques by drawers.
- Different consequences of issuing cheques uncovered by funds.

##### Transfers

- Structural differences : some Member States have a comprehensive legal framework for transfers, others operate on the basis of general legal doctrines and case law.
- Rules on the time of irrevocability (of the payment order) and finality (when the underlying obligation is extinguished) differ.

##### Payment cards

- Different levels of implementation of the Commission's 1987 and 1988 Recommendations.
- Differences in non-contractual aspects, e.g. legal tender, finality of payments, revocability, proof, etc.

##### Debit orders

- Absence of specific legal provisions and differences in jurisprudence.

#### Payment systems

##### Finality of settlement

- Differences as to the moment when settlement between the parties becomes final ((1) transaction recorded by system; (2) declaration of clearing organisation; (3) entry of balances onto accounts at central bank; (4) end of accounting day).
- Differences in bankruptcy rules affecting a participant (and thus conflicting with the above) invalidating payments made by bankrupt participant with effect back to 00.00 hours on date of declaration.

## Responsibilities of participants

The laws on responsibility of banks as between themselves and towards their customers differ as does the scope for contractual limitations of liability.

## Priorities

59. The Group considers that these issues are not "preconditions" to the establishment of the links between retail payment systems for which the Group is preparing the ground. Several existing cross-border payment systems (e.g. ATM linkages) are operating on the basis of contractual provisions alone and the sponsors of others which are being planned do not point to insuperable legal obstacles. Nevertheless, it is recognised that contractual provisions cannot resolve all the issues.
60. The Group therefore takes the view that whilst it would in the long term be desirable to work on all of these areas, the priority at this stage is to eliminate those differences which endangered the efficacy, and in particular the security, of payments.
61. It was agreed that three issues should be treated as priority matters :
  - the legal tender effect of payments made by transfers, payment cards and debit instruments;
  - the point of irrevocability of payments by transfers, cards and debit instruments;
  - the moment of settlement finality within a payment system (including bankruptcy law aspects).
62. These issues affect not only retail payment systems, but also large value systems, and it would be impractical to establish different rules for these categories. It is also agreed that the issue of settlement finality concerns not only the parties to payment systems, but the banking supervisors; indeed, in the Lamfalussy report's minimum standards for netting schemes the First Principle requires "a well-founded legal basis under all relevant jurisdictions". Clearly, this can not be demonstrated where the legal bases under which the various parties operate - which override the contractual rules of the system - are at variance.
63. A further question arises as to whether the solution would require harmonised rules for all payments (within and between Member States), or whether it would be necessary only to cover cross-border payments. Although the task would be more difficult, the Group feels that in the long-run the rules should be the same, within the Community, for domestic as for cross-border payments. It is also noted that it would be desirable to ensure as far as possible comparability with other major financial centres. The UNCITRAL draft model law was a promising international attempt to achieve a harmonised approach, but the Group noted that further work would be required to finalise this and that, as presently drafted, the model law presented a problem for Germany.

#### Possible approaches

64. The Group notes that the UNCITRAL draft Model Law deals with some of the problems. Indeed, it includes provisions on the three priority areas, identified above, of irrevocability, legal tender, and final settlement (including the effect of bankruptcy thereon). Nevertheless, the Model Law is not a ready-made solution because :
- it only covers credit transfers;
  - on the three priority areas the UNCITRAL provisions are probably too imprecise to take precedence over other specific laws (e.g. on bankruptcy).
65. Although the Model Law is not yet adopted, it is likely to become an important international standard and subject to settling the outstanding points in the draft to the satisfaction of all Member States should certainly be the basis for any Community legislation on transfers (supplemented as necessary to deal with consumer issues).

#### Conclusion

66. The Group therefore concludes that whilst legal disparities and uncertainties are an inconvenient factor which undoubtedly adds to the complexity and risk of cross-border payment systems, they can in the short-term for the most part be overcome by contractual or other arrangements. Work should be put in hand nevertheless by an appropriate group of specialists with a view to finding solutions in the medium-term and dealing in particular with the priority questions identified in paragraph 61. The need to begin now with such work - which would take time to complete - was reinforced by the Maastricht Treaty on EMU. There should be an effective liaison between this legal work and work on the technical aspects carried out within the CEBS.

#### IV. Competition policy (see Appendix 5)

67. The Commission stated in its Green Paper that there is ample room for and much to be gained from competition between different cross-border payment systems. Indeed, one of the criteria proposed in that paper for assessing the efficiency of systems is that the costs for those using them should be "subject to the maximum extent to competitive market forces".
68. At the same time it was recognised that the development of an efficient management of payment systems may require a substantial level of cooperation among banks and between them and the public authorities. Such co-operation may well have to include agreements between participants and/or between them and a central body on such matters as standards, operating rules and cost sharing as well as rules defining conditions for membership or other access to the system.
69. The Group considers that this is an area in which the Commission has a vital role to play by indicating in advance as far as possible how the Treaty competition rules would be applied to the cross-border systems envisaged. In this way banks and others which are considering the case for making the necessary investment to develop them will not be inhibited by feelings of uncertainty about the effect of the competition rules. The key principles in this regard are set out in Appendix 5.

#### Access to systems : membership criteria

70. The question of access to payment systems is governed by the Treaty rules on competition. (Additionally, if the payment system is controlled or monitored by public authorities, the Treaty principles on freedom of establishment to provide services will apply. These latter aspects are separately considered in paragraphs 76-92.) The general rule is that systems should :

- be non-exclusive and thus open for further membership;
- apply objectively justified access criteria.

So far as the participation of non-banks is concerned, a distinction may be drawn between joint bodies of the credit sector and others. The above mentioned rules do of course apply to non-banks, but the fact that they are not supervised will be relevant (see paragraph 93).

#### Operation of systems : standards

71. Payment systems are run according to rules or standards which may be divided into technical, applications, and operating, standards (see paragraphs 36-38 above for examples of each type).

72. Reference should be made to paragraphs 35-48 as a whole for the discussion of standards. For the purpose of competition policy, operational standards are particularly relevant as they include matters such as value-dating. These arrangements are in general legitimate so long as they do not lead to concerted value dating practices with regard to customers. As a general principle operating standards should not lead to any exclusive arrangements; customers must remain free to change banks or to bank with several banks.

#### Operation of systems : risk management

73. Arrangements need to be made for the setting of minimum security standards and for the management of risk in payment systems. These will usually need to take into account certain of the principles set out in the Lamfalussy report of November 1990. They may include rules on collateral or the setting of limits to exposures and loss sharing arrangements.

#### Costs and prices

74. "Agreements between undertakings ... which have as their effect the restriction of competition and in particular those which ... directly or indirectly fix ... prices ... are prohibited" (Article 85 EEC Treaty). In the context of payment systems, a distinction should be drawn between three types of "prices" or costs :

- prices charged to customers must remain completely unrestricted;
- costs of payment systems and central bodies, whether starting up costs or operating costs can be shared among participants at fixed rates;
- interchange fees in multilateral systems - whether or not there is a central body - must leave open the possibility of bilateral negotiations leading to lower fees. This means the interchange fees can only be set as maxima.

The Group recognise that within this third category a further distinction should be drawn, between large and small systems. In a large one it is unlikely that bilaterally negotiated tariffs can be handled by the system; participants could however achieve the desired result by applying rebates to each other, outside the system.

#### Conclusion

75. The Group conclude that the existence of a diversity of payment systems and a variety of different competing providers would be highly desirable. Within individual payment systems however cooperation in the form of agreements between participants on a range of issues, indicated above, is required. In particular pricing, which is a sensitive issue, had to be viewed by the Commission in a practical light. It is agreed that the Commission's revised "Guidelines on Competition" set out in Appendix 5 provide a reasonable basis on which further progress in developing cross-border payment systems can be made.

#### V. Access

76. If a payment system potentially affects trade between Member States it falls under the ambit of articles 85, 86 and 90 of the EEC Treaty. The implications of these - competition - articles, are explored in paragraphs 67-75 above on competition policy. This section first examines whether the remaining corpus of EEC legislation has implications for the access rules (including the ongoing membership conditions) pertaining to RCBP systems. The main point that emerges is that EEC legislation - especially articles 52 and 59 of the EEC Treaty - has implications for the access conditions relating to systems in which the public authorities are involved. In a second part the question of access is considered from the point of view of the banking supervisor which will often, but not necessarily, be the public authority referred to above.

#### Freedom of establishment and services

77. The access problem in terms of EEC Treaty rules on freedom of services and establishment and those of the Second Banking Coordination Directive arises with regard to payment systems for which public authorities are either directly responsible, or where they have a clear influence on the structure and in particular on the range of participants of the system.
78. There is frequently a public authority involvement, even in the area of retail payment systems. Indeed, in several, if not in all Member States, the Central Banks satisfy themselves about the appropriateness and in particular the security of payment systems; in most cases participation in the system will depend amongst other conditions on the possibility for participants to open settlement accounts with the central banks. This leads to the conclusion that the access to payment systems in quite a number of cases is, at least indirectly, under control of and therefore the responsibility of public authorities, so that the EEC Treaty rules on freedom of establishment and services and the Second Banking Coordination Directive will apply.

79. For the purposes of the present analysis, two situations are distinguished, one in which a credit institution from another Member State ("EC bank") has set up a branch in the country in which it requires access to a payment system and the other one in which an EC institution, not established in the country, wants to participate, from abroad, in a payment system in the country concerned.

#### Establishment

80. This section deals with the situation in which an EC bank has a presence in the form of a branch in the country in which it seeks access to a payment system. It is assumed that in the area covered by this paper subsidiaries of foreign banks are in any case treated on an equal footing with domestic institutions.
81. In this case, article 18 paragraph 1, article 19 paragraph 4 and the Annex, point 4 ("Money transmission services") of the Second Banking Coordination Directive apply. Read in conjunction with the general provision of article 52 of the EEC Treaty, these provisions stipulate that the branch of an EC bank is entitled to carry out money transmission services in the host country, provided that the credit institution is authorised to render such services in its country of origin. The branch must receive full national treatment, i.e. it must be treated as if it were a domestic institution (article 52 EEC). However, it is obliged to accept the conditions under which money transmission services must be carried out in the host country if these conditions serve a public interest (article 19 paragraph 4, Second Banking Coordination Directive). The integrity, stability and efficiency of payment systems are purposes which may lawfully be pursued in the public interest.
82. It follows from the above, that the Second Banking Directive by itself does not imply that an EC bank has automatically and unconditionally a right to participate in host country payment systems, just because it participates in such systems in its country of origin. However, it can be required that objective criteria are met by candidates wishing to join domestic payment systems (organisational structure of the institution, technological capability, posting of collateral in centralised systems, sharing of costs for past investments necessary to set up the system, etc.). The size of an institution can be an objective criterion, but can pose a problem for newcomers in a given market, which inevitably will not immediately have the same volume of business as long-standing participants, i.e. objective criteria must not be of such a kind that, while formally even-handed, they work in practice to the disadvantage of incoming foreign institutions. As regards size criteria, it may be possible to refer back to the size of the bank itself, which has set up the branch in question. If this branch is likely to have very few transactions in the host country during a first period, the technological and cost sharing requirements provided for in a given system might be dissuasive; this in itself should, however, not be seen to be discriminatory (i.e. profitability considerations of a payment system need not be set aside just to make room for a participant from another Member State).

83. As regards discretionary conditions, they are not excluded by the Community provisions quoted above. Indeed, if public authorities have discretionary powers (albeit often in conjunction with the body actually responsible for the system, which may be a private sector organisation) in admitting domestic banks to a given system or to refuse them, these same powers can be exercised with regard to other EC banks as long as the use of such discretionary powers is non-discriminatory. Thus, the discretion must not be used in such a way that it works to the disadvantage of EC banks, either in its inherent objectives or in its practical effects. The fact that a candidate member of a payment system is "only" a branch of an EC bank must not be held against it. The monitoring of discretionary decisions under Community rules can even include "statistical" considerations. Here again, as with regard to size, the discretionary decision might be based on elements (standing, experience, quality of management, credit rating) of the entire bank, which has set up the branch in question.
84. Considerations similar to those on discretionary powers will apply when it comes to deciding about direct or indirect membership in certain systems ("settlement members" and "corresponding members", the latter having access to the system via a settlement member). Branches of EC banks must not systematically be excluded from becoming settlement members. On the other hand, the same principles as those guiding the authorities when deciding whether a domestic institution can become a settlement member, or whether it must accept the status of a correspondent member, should apply with regard to branches of EC banks. Here again, discretionary decisions are not per se unlawful.

#### Services

85. Under article 59 EEC and article 16 paragraph 1 as well as the Annex, section 4, of the Second Banking Coordination Directive, freedom for the provision of services must also exist in this area.
86. In practical terms, the likely situation is that an EC bank may want to use a domestic clearing mechanism in order to channel payments to banks in the host country, normally to the benefit of its customers in that country, or to receive payments from such customers and their banks via the clearing system of the host country in question. In other words, one is looking at the direct, albeit remote participation of an EC bank in a domestic clearing system; "ACH-linkages", which are a way of establishing indirect contacts between foreign banks and a domestic ACH (via a foreign ACH) or the extension of ACH services beyond the frontiers of one country (e.g. the operation of a transnational ACH) are not relevant in this context.
87. It would be inconsistent with EEC principles if a host country were to require that only institutions established on its territory could become members of a payment system in the host country concerned. In other words, the geographic location of a credit institution wishing to provide payment services cannot normally be considered as an objective criterion allowing the authorities to stop an institution from joining a given payment system. (It may in certain circumstances be permissible to require a physical presence, in some cheque clearing systems for example.) However, both objective criteria and discretionary powers could, in the case of services, take into account all that is necessary, in the public interest, to make domestic payment systems safe and efficient.



88. Therefore, and without having regard to the practical feasibility of remote membership arrangements, it is clear that EC banks in such cases would have to meet all the technical and legal requirements (technical and operational standards, possibly collateral, operating hours, etc.) of the host country system in question. They would have to convert their payment messages into the message format applying in the host country; they would have to denominate operations in the currency in which the other country's system operates.

#### The central bank perspective on access

89. From the central bank viewpoint it is extremely important that membership rules/conditions are sufficiently robust in each Member State to uphold the integrity of the payment systems in question. This underlines the need for a close surveillance of access conditions (defined to include ongoing membership requirements for such systems) especially for non-collateralised, net, end of day, systems. A priori collateralised, real-time gross settlement, systems will be more robust, though the trade-off between robustness and cost should always be taken into account in order to maintain the efficiency of the system.
90. The less stringent such conditions are, the greater the potential risk to the payment system since it is vulnerable to problems in a wider population of banks than in a tightly-restricted payment system.
91. However, it may be that particular, "restricted" systems are no more secure. E.g. the "direct"/"full" members of such a system may - depending on the structure of the system in question - be extremely sensitive to problems in "indirect" members of the same system. If so it may be important that these authorities charged with overseeing the system, undertake some form of "monitoring" role in relation to the system's indirect members. (The separate question of what should be done to prevent indirect members becoming excessively dependent on direct members, and any undesirable, competitive consequences resulting from of this, is discussed in the section on competition policy.)
92. Improved RCBP systems based on linking domestic payment systems (e.g. that based on ACH linkage) may need to be carefully supervised, given the danger that the system as a whole could only be as strong as its weakest component part. One solution would be to ensure that the rules governing members of such a system are such as to insulate each country's domestic payment system from the effects of problems elsewhere in such a connected system. Another, preferable, solution in the longer run would be to harmonise the access principles of the relevant national systems. Clearly the Commission, the Council and central banks would have the overriding responsibility to ensure that this was indeed the case.

#### Non-banks' access

93. The operation of a payment system in the full sense of the term requires that the provider can arrange for final settlement over an account at the central bank for the currency concerned. In order to provide such settlement it is necessary, though not sufficient, to be a bank. Non-banks may, of course, play a full part in other aspects of a payment

system. They may e.g. act as network providers or be linked to banks fulfilling a settlement function and thus be indirect members of the system (as in the case of e.g. Visa and Eurocard). It is important that the risks associated with indirect members are adequately appraised by both the appropriate direct members, and by the authorities overseeing the system.

#### **VI. Systemic risk and supervision**

94. The smooth functioning of payment systems is a crucial requirement for the stability and efficiency of the financial system. Given central banks' role in maintaining the stability of the financial system, it follows that they have the task of ensuring that it is safeguarded against the risk of a malfunctioning of the payment system. The potential risks arising from interbank netting schemes were analysed in the Lamfalussy Report<sup>(\*)</sup>.
95. The Group's view is that due to the limited value of flows proceeding via RCBPS, such risks might, a priori, be expected to be lower than in the case of large value, payment systems. In reflection of this the degree of official oversight required for such systems would need to be less than for large value systems. This was not to deny that problems in RCBPS could be extremely serious for those using them (e.g. if payments were not received on time, or at all).
96. The Group also identified four matters of particular concern to central banks in the context of RCBP :
- the conditions for access to such systems;
  - the question of how retail systems - whether organised by banks or non-banks - should be assessed by central banks;
  - the legal framework underpinning such systems;
  - the risk associated with linking domestic payment systems, in particular ACHs.
97. The first three of these are largely dealt with in the sections on legal issues and access above, and the fourth in the section on ACH linkage, below, in this report.

#### **Conclusions**

98. The Group notes that rules concerning access to payment systems, and measures taken by central banks to monitor/limit systemic risk, are crucial to the development of payment systems. It observes that work is already underway in central banks on these issues and recommends that the Commission continues its work on access criteria in this context. The Group agrees that it is desirable for the view of banks to be taken into account in all this work.

---

(\*) "Report of the Committee on interbank netting schemes of the central banks of the Group of 10 Countries", Basle, November 1990.

## VII. Reporting requirements (Appendix 6)

99. In most Member States there are special reporting requirements for sending transactions to, or from, non-resident accounts. For example in Spain a reporting obligation falls on the resident account holder. These requirements differ from one Member State to another (see Appendix 6). They normally apply to all cross-border payments as well as affecting others which are in other respects "domestic". This means that the cost for a bank of processing a payment to, or from, a non-resident account, may exceed that of one involving a resident account. This affects not only the amount of fees, but also taxes and value-dating; indeed in some Member States transactions involving non-resident accounts are passed through different clearing systems than other transactions are.
100. To the extent that such duties raise the cost of making those cross-border payments that involve non-residents, they discourage them, especially when this additional cost can represent a significant amount of the value of a cross-border payment.
101. The main alternative mechanism for collecting these data to direct collection - namely by way of surveys - is viewed by the statistical authorities in most Member States as an inferior method, though the one Member State that uses surveys (the UK) rejects this assertion.
102. It is acknowledged that the full burden of reporting requirements does not always fall directly onto the banks, but sometimes onto their customers. However, it is clear that, no matter who is obliged to report, these requirements increase cost of cross-border payments, especially their retail component, when the threshold is low.
103. The possibility of relaxing reporting requirements for bulk payments, as long as the average payment in each such batches falls under the reporting threshold, was explored by the Group. The main problem they identified was that any relaxation of this kind would prevent the statisticians from finding out the type of transaction involved (including the payee) and thus from accurately constructing their balance of payments/monetary frameworks.
104. Some Group members query whether it is right for the banking community to bear some, or all, of the cost of reporting requirements in certain Member States, when the benefits of this information do not accrue to them, but have instead a broader social utility. However, there is general acknowledgement of, and support for, statisticians' current efforts to reduce reporting costs, regardless of their incidence, particularly their investigation of the possibility of paperless reporting mechanisms in the context of EDIFACT. (The improved infrastructures which the banks are now considering do not involve EDIFACT.) However, in the longer-term it should be possible via EDIFACT to include in a single message both a payment order and the information required for official reporting purposes. The possibility of electronic reporting is available in several Member States, including France, Germany, Italy, the Netherlands and Spain.
105. The Group see a need for the criteria determining the choice of reporting thresholds, and the reporting mechanisms used, to be clarified. If this is done, there will be less likelihood of arbitrary differences in the thresholds, and reporting procedures, applied in

different Member States, differences which tend, *ceteris paribus*, to discourage the development of RCBPS. It would be desirable for the threshold beyond which reporting requirements would be imposed, and the specific procedures associated with them, should be harmonised across the EC.

## Conclusions

106. The Group concludes that :

- the minimum threshold for reporting requirements should be as high as possible, and at least ecu 10.000, throughout the Community if it cannot now be abolished;
- the methods used to collect such data should be as efficient, and as consistent across Member States, as possible, including in particular electronic reporting with a view to using EDIFACT standards in the medium term.

## VIII. Data protection

107. In September 1990 the Commission proposed a Directive concerning the protection of individuals in relation to the processing of personal data of 13 September 1990. This Directive is presently being examined by the European Parliament. Changes in the text of the Commission proposal can therefore only be decided on, once the Parliament's position will be known. However, the Group consider it important to take a clear view of what the effect of the rules of the Directive on data flows required by payment procedures might actually be.

108. It is noted that the Directive, in many respects, provides for broad principles, while the possible interferences with payment techniques often concern specific aspects and technical interpretations of these principles. In particular, the following aspects were examined.

### Multiple information of the data subject and notifications to authorities

109. If articles 8, 9 and 11 of the proposal, in particular article 9, paragraph 1, are read strictly, one could come to the conclusion that the data subject must be informed repeatedly and for each individual payment process (for instance, in each case in which a payment card transaction is communicated to an authorisation centre).

110. Without envisaging a precise wording to overcome this problem, the PSTDG and the Commission services agree on the objective : to avoid the need for repeated information of the data subject.

111. In many cases, the problem can be solved by making use of the concept of contractual or quasi-contractual relationships as enshrined in article 8(1)(a) of the proposed Directive; in certain cases the concept of "legitimate interests" as referred to in article 8(1)(c), too, can be of relevance. In general terms, the following objective was shared by the PSTDG and the Commission services : when a person is provided with payment facilities (i.e. by opening a bank account or a credit card account), it should be sufficient to give the information regarding possible communications to third parties globally at the time of

collection of the data. Where a chain of institutions must intervene in order to transmit payments, only the first institution should be responsible for this information.

112. As far as notifications to the public authorities are concerned, intermediary institutions in the payment chain are to be considered to be "controller of the file" regarding the sender or the beneficiary of the payment. However, article 11(1) should not imply that each such institution would have to notify the authorities of each payment; indeed, notification requirements will only arise globally, i.e. with regard to the operation of payment systems as such. The Group considered that a sensible approach would be to consider that each payment order initiated by a customer was at the same time a consent to the transmission of data.

#### Automated decisions

113. The PSTDG and the Commission services agree that the proposed Directive, and in particular its article 14, paragraph 2, will not prohibit "automated decisions" where an operation would exceed the contractual limits of a given service (e.g. refusal of an ATM cash withdrawal over and above a given amount).
114. The PSTDG and the Commission services agree that aspects of this kind should be taken into account in further discussions of the proposed Directive and in negotiations with Parliament and the Council.

#### Credit scoring

115. The Commission services consider that the Directive will impose certain limits without, however, making "credit scoring" impossible altogether. The lawfulness of "credit scoring" will depend on the criteria used for the purposes of scoring. While it will normally be lawful to include among the criteria payment incidents or other past difficulties with a customer, limits must be kept with regard to criteria which can imply arbitrary discrimination (e.g. nationality, location of domicile, etc.). The Group comments that restrictions on credit-scoring would lead to an increase in the cost of making RCBP, particularly via payment cards.
116. Negative decisions with regard to a customer may be based on automated procedures and in particular on automated credit scoring, provided that the customer has the possibility of contacting the bank in presenting further explanations and seeking a redress to a negative decision.

#### Transmission to third countries

117. The problem which article 24, paragraph 2 of the proposed Directive seems to pose with regard to communications involving third countries, in particular in the context of payment card authorisations, is acknowledged by the Commission; the text will be adapted. Mechanisms to take account of appropriate contractual solutions will be worked out. These could be applied to payment card authorizations and international transfers. This will be done on the basis of, on the one hand, the customer-bank relationship and, on the other, the features of international interbank networks.

118. The Group notes that other more general aspects of the proposed Directive are also relevant to, and can pose certain problems for the activities of credit institutions. These broader aspects are :

- the use of "back-up", and other working, files;
- the creation of "customer profiles";
- the treatment of information concerning criminal offences;
- the treatment of "manual files" kept by credit institutions.

119. The Group concludes that all these aspects will have to be studied further in the context of work on the proposal of the data protection Directive and that the solutions outlined above should be taken into account. The Group also notes that mutual information between supervisory authorities will not be hampered by the proposed Directive (see article 6, paragraph 1 (a)).

#### D. POSSIBLE WAYS AHEAD

##### **Determining factors**

120. The future of RCBPS in the Community will be determined by a combination of market forces and Community policy. The demand for such systems should increase as progress towards a Single Market continues. Meanwhile the private sector is already investing in new systems to meet this demand. A sample of those already in operation, or in the pipeline/at the drawingboard, were described in paragraphs 28-34 above. Several of these schemes base themselves on correspondent banking which will continue to play a major role in RCBP. Others seek to exploit the availability of a single banking licence from end-1992, which creates the possibility of banks increasingly branching into other Member States and thence acquiring access to host country, domestic payment systems. On the basis of such access they would then be able to transfer payments "in-house" (i.e. from a branch in one Member State, to a branch in another Member State for subsequent transfer to the ultimate beneficiary.
121. The argument of the main "key issues" section of this report is that there are a series of further steps that need to be taken and can already be taken in the near future - mainly by the public authorities at Community level - to facilitate the introduction of efficient RCBPS. However, whilst the Community remains a multi-currency zone, differences between cross-border and domestic payments will remain.
122. Two steps which have already been taken at Community level will facilitate the introduction of efficient RCBPS in the years to come. First, the entry into force of the Second Banking Coordination Directive (see paragraphs 76-88 above) will encourage the development of more efficient RCBPS. Second, the decision on the adoption of a single currency by 1999 at the latest.
123. The rest of this section summarises the Group's discussion of the following three items :
- correspondent banking;
  - linkages between ACHs and equivalent systems;
  - the possibility of fostering direct debiting as a means of making RCBP.

The share of this section on "the future" allotted to each of them signifies not their importance relative to other likely future developments, but the time devoted to them by the Group in the framework of the Commission's work programme for the Group.

##### **Correspondent banking**

124. The long-established technique of correspondent banking, which currently handles most, if not all, retail cross-border transfers, will continue to play a major role in RCBP. Improvements of various kinds, particularly using electronic technology, are being developed, some by individual banks with their correspondents in each Member State, others by groups of banks. In the case of groups of banks the arrangements can be regarded as either a form of multilateral correspondent banking, or

as a cross-border payment system. The Group considered a number of these new developments during the course of its work and these are described in paragraphs 28-34 above.

125. The various recommendations made in the key issues section of this report, would, if implemented, markedly increase the efficiency of correspondent banking (as well as that of other types of RCBPS). Progress towards agreed Community-level, technical and application standards would be especially beneficial since it would provide further impetus to the movement towards automated correspondent banking. Common standards relating to credit transfers would, for example, permit end-to-end, automated electronic processing, bringing about significant cost savings, as well as increased speed and reliability. Certain of the other steps recommended earlier, such as an increase in the reporting threshold to a minimum of 10.000 ecu and changes to the proposed data protection directive would also be extremely helpful.
126. In order for the benefit of all these steps to be maximised, it is necessary for domestic payments in Member States to reach a common, high level of efficiency, equivalent to that achieved in the most efficient domestic systems now.

#### Linkages between ACHs and equivalent systems

127. One of the main ideas put forward in the Commission's Discussion Paper on "Making Payments in the Internal Market" concerned the possibility of linking "ACHs and equivalent systems" (henceforth referred to as ACHs). In reflection of the positive feedback on this particular issue, the Group were invited to investigate it further. The response of Group members belonging to the Banking Federation of the EEC to this challenge, together with the key points made during discussion of the subject (including contributions from non-Group members who testified to the Group) is set out below. Recommendations for further steps in this area are then outlined in paragraph 150. This section describes the main issues associated with this particular form of RCBPS - it is taken as read that the recommendations made earlier regarding key issues will apply to it, as well as to other systems (such as correspondent banking).

#### Rationale for closer analysis of the linkage concept

128. There are numerous segments in the market for RCBP and different systems may be required for each of them. From a competitive viewpoint, reliance on a single system for a particular type of demand is unhealthy, unless the returns to scale are substantial and pricing policy is carefully controlled; the question is whether a system based on linking ACHs, or equivalent systems, is different in any significant manner from other systems.
129. Many of the aims associated with it are attainable, at least in part, using alternative systems such as those based on "improved correspondent banking". The cost savings resulting from automation provide one example, though the amount of such savings may be less for the latter if e.g. the standards used by such "correspondent groups" differ one from another. However, in principle there should be various advantages which are specific to, or else particularly closely associated with, the "linkage concept". First, the number of banks involved between the ultimate payer and payee will be lower for many, if not all, payments.



This will reduce the overall costs of making a payment on the assumption that the cost of going through the ACHs involved will be tiny due to economies of scale, automation, etc. Second, there will be more potential for bundling together payment orders implying fewer international "messages", and foreign currency conversion cost savings. Third, the linkage concept could facilitate greater transparency than that attainable under correspondent banking given the uncertainty about the costs to be levied by and the timespans imposed by correspondent banks that often occurs under the latter system. Fourth, it may be able to better cope with the growth in RCBP projected in the wake of the Single Market and EMU. Fifth, there is less danger of small banks becoming excessively dependent on the large banks which have well-developed correspondent relations.

130. However, a large amount of work remains to be completed before an informed decision regarding its economic/technical feasibility, can be taken. Included in this is the need for the central banks to assess the risk implications of any detailed blue-print for linking ACHs that is drawn up, and the necessity for the banks to assess the implications for the business case for such linkage of a move to a single currency by 1999 at the latest, and the likely increased use of the ecu prior to the introduction of the single currency. (Clearly such an assessment of the possibility for part of the system to become obsolescent due to progress towards monetary union is required before any proposed RCBPS is decided upon, and not just the linkage model.)

#### Relationship with other types of RCBP systems

131. It should be emphasized that the mechanisms which the banking community has developed for cross-border payments, such as the SWIFT network for electronic processing of messages and the traditional individual banks' correspondent banking relationships for the handling of the flow of funds, would co-exist with any development for linking ACHs, as complementary, or competitive, means of cross-border payment. Competition is an essential feature of banking services offered to customers and it is envisaged that ACH linkage would be one of a number of options for effecting cross-border payments. In this competitive environment it will be important to ensure that the ACH linkage mechanism will be cost efficient for banks and their customers, and meet appropriate security and risk requirements. To this end, it may be easier for ACH links to provide a framework for making low value, remote, cross-border payments using, wherever possible, existing infrastructures and standards. In addition, such a mechanism should be sufficiently flexible to :

- accommodate future changes, including the adoption of a single currency within the EEC;
- allow the relevant part of any infrastructure to be used for payments to non-EEC countries;
- ensure that originating banks have the opportunity to use the system of their choice when effecting RCBP orders.

132. If ACH (or alternative bodies) links are forged, it is likely that this will be by means of bilateral agreement. The linkage will be to provide a mechanism for those payments which comply with the description that follows in paragraph 133.

#### Type of payment

133. The linkage will cater for low value, remote, cross-border payments processed in batches. It is agreed that links should be able to process both credit and debit items. Low-value payments are considered here as being of maximum value for an individual item of the order of 10.000 ecu. This ceiling value would encompass the majority of retail cross-border transactions within the Community generated by individuals and by small, and medium-sized, enterprises. Considerations such as the time period associated with the linkage mechanisms could militate against it being used for payments in excess of 10.000 ecu.

#### Message format

134. For economic automated links, it is considered that agreement should be reached upon a common message format for the interchange. This common interchange format could be used in a national ACH, but until this is available, a translation out of and into national ACH formats will be necessary. (Systems to do this - which could be adapted to be used in the period before such a common message format is developed, under the linkage concept - have already been constructed by certain market participants.) For reasons of expediency and the potential to interface economically into other systems, it is recognised that the common interchange message format should be based on an existing agreed international standard. As a starting point the SWIFT MT 100, a subset thereof, or the proposed SWIFT BULK PAYMENT format could be used with eventual migration to EDIFACT.

#### Routing identifier

135. One possible routing identifier is the SWIFT Banking Identifier Code (BIC) which provides a country identifier and a means of identifying individual banks (with the exception of certain girobanks) in each country. The BIC - in conjunction with domestic sorting codes for those countries where the BIC does not give sufficient information - together with account numbers, provides the necessary routing information for the automated interchange. This routing strategy means that account numbering can remain the concern of each national banking sector and need not be consistent throughout the Community. The validation of the various identifiers including those necessary for the domestic, preferably automated (in view of the cost savings from automation) posting of accounts, could be facilitated by a European test key or check digit, which could be used by all EC banks.

#### Carrier

136. The communication link between ACHs will be a matter for bilateral agreement, taking into account criteria such as reliability, cost and security. The parties could choose to use existing networks such as open networks or SWIFT, or other media. In making this choice consideration would need to be given to issues such as access to the system (for example, whether users would have direct access into the communication network) and the reliability and number of interfaces.

### Currency conversion

137. The bulk of RCBP involve currency conversion at some stage of the payment process and it is therefore important that the procedures governing such conversion are agreed upon. (It is of course also desirable that the system can accommodate RCBP which do not involve currency conversion, but this may not be possible from the outset.)
138. Such procedures should, in the first phase, ensure that, when remittance is by an ACH, currency conversion takes place in the remitting country. In addition it should be the case that funds "sent" cross-border by an ACH are denominated in the beneficiary's currency, with those received denominated in the local currency. The costs of constructing arrangements ("modes") to embody such features will need to be carefully assessed, particularly in view of their relatively short working life with regard to intra-EC currency conversion. The likelihood is that some such modes will be "redundant" by 1999 at the latest. However, it is unlikely that this would have a major impact on the economic case for ACH linkage. This economic case is largely independent on the number of currencies used in the system - instead it rests mainly on the fact that national payment systems within the EC are not linked together.

### Rate of conversion

139. This is a matter for decision in each remitting country. Careful consideration will need to be given to the mode of operation for debit transfers.

### Settlement arrangements

140. The main options for settlement arrangements - which can be either direct or indirect - are as follows :

- bilateral settlement on the basis of correspondent banking relationships;
- settlement through central banks in each Member State;
- settlement between the ACHs in each Member State;
- through a single settlement bank in each Member State which is not the central bank; and
- through a single settlement institution in Europe (which might or might not be a European Central Bank).

The implications of each option have not been fully explored by the Group. However, the preliminary view of some Group members is that a single settlement institution should be used in each country; others would however prefer to conduct settlement through correspondent banking relationships.

141. The issue of settlement arrangements should be based upon gross settlement of single currencies which, together with the low value of items which may be handled, significantly reduces the risks involved in the ACH interchange. One implication of this is that central banks might need to open more foreign currency accounts for banks. This may be difficult since central banks are unable to "create"/"destroy" foreign currencies when they are in deficit/surplus, respectively, at the end of the day, whereas they can create/destroy their domestic currencies.

142. The settlement issue is a complex one, requiring very careful consideration. Aspects such as the criteria for the creation of settlement accounts and the Lamfalussy principles will need to be borne in mind, not least by the central banks entrusted with the task of safeguarding the financial system against the risks that could be associated with linked RCBP systems, risks that would be exacerbated were large value payments to migrate to such systems.

#### Membership and access

143. In establishing any links between ACHs, it would be necessary for the parties to agree on who could have access to the systems and who would be eligible to be direct members; who participates in settlement; and, hence, who takes direct financial responsibility for items they introduce to the system.

144. Access to payment systems may be indirect, thus offering greater flexibility and choice particularly to smaller institutions who do not wish to take on the operational and financial duties of direct membership. This differentiation is acceptable under the Second Banking Directive.

#### Time cycle

145. It is clear that objectives should ultimately be set for the following :

- delivery time for items
- settlement time cycle (between ACHs, but also - in the longer run - between end-users)
- finality of payment
- timetable for handling errors
- irrevocability of payment

146. Of these criteria, the time cycle for settlement between ACHs is one upon which attention has already concentrated. This criterion could be determined on a bilateral basis between ACHs conducting interchange, or collectively if there were a number of participating ACHs. It is incumbent upon those who operate the ACH link to offer an efficient service with an agreed time cycle for settlement. In addition, banks will be seeking to agree on maximum timescales in which a payment will reach the beneficiary bank. It is inappropriate, however, for these operational aspects to be determined in advance of discussions between participating ACHs who will, at that time, be able to determine what is practically possible when the automated, and manual, aspects of the links in their respective national systems have been assessed. (The efficiency of domestic payment systems has of course implications for other characteristics of RCBP under the ACH linkage (and indeed for alternative systems for RCBP. E.g. it will impact on the cost, certainty, and security of such payments).

#### Security and error handling

147. A minimum common, appropriate level of cryptographic security will be required for the ACH interchange. Operational rules for the handling of errors will be required, but these cannot be agreed until the structure of interchange arrangements between ACHs is agreed.

### Interchange charges

148. The need for a charging structure and its features will depend upon the infrastructure finally selected for the linkage of ACHs and the volume of cross-border payments processed. It should be stressed that these links do not provide a public utility and that freedom of competition in pricing is essential. If ACH links are to provide a cost-efficient cross-border mechanism for the customer it is important that interchange fees are allowed to reflect changing costs in the provision of the service. At the same time it would be desirable from the customer's viewpoint for it to be possible for payment to be made net of charges and it should be an objective of any system to provide for this possibility.

### Discussion of ACH linkage

149. Group members stress that there must be a business case for such a system. Second a modest approach to the establishment of such linkage involving the linkage of a small number of ACHs which are already largely compatible would be preferable to one which sought to embrace the majority of Member States at its outset, especially given the current absence of ACHs or equivalent systems in some Member States. Third, the costs involved in establishing linkage are relatively small in those Member States where ACHs are already established.

### Conclusions

150. If a system based on ACH linkage on the lines described above is to be developed further, it will be necessary for a series of steps to be taken. First agreement on certain technical and applications standards by banks is required - this could be one of the first tasks of the CEBS. Second, the minimum reporting threshold should be raised to a level of 10.000 ecu, in order to bolster the business case for ACH linkage. Third, attempts should be made to involve third countries - notably, but not only, those in the European Economic Area - in the system. (It should be reiterated that action on the above lines will benefit other types of improved RCBPS as well as ACH linkage.)

### Direct debiting

151. The essential feature of direct debiting is that a payer authorises the payee to collect payments from the account; the collection is done by the payee's bank. The basic difference of this technique as compared to credit transfers is that the payment process is initiated by the beneficiary, though with the payer's consent (authorisation). Instead of being "pushed through" a system by a sender's payment order, the payment in the case of direct debiting is "pulled through" the system by a collecting order to the payee.
152. The infrastructures of systems used for direct debiting are basically the same as those used for transfers. In particular the existing ACHs can handle domestic direct debiting procedures as well as transfer procedures. Accordingly, both existing correspondent banking systems and

possible future links between ACHs can in principle provide the necessary facilities for cross-border direct debiting, provided that certain preconditions are met. A number of individual banks have already begun to offer their own cross-border direct debiting facilities.

#### Key issues

153. The key issues discussed in section 35 to 119 of the draft report apply, mutatis mutandis, to direct debiting as well. However, the standards which need to be developed for international direct debiting are specific and different from standards for transfer orders. The legal issues to be addressed with regard to direct debiting also present a number of specificities. Thus, before developing standards, for instance pre-established formats for collecting orders, it would be necessary to analyse and compare different types of direct debiting procedures existing in various Member States. There are differences, for instance, in the procedures for prior authorisation of or objecting to a direct debit; these procedures vary from system to system and also from Member State to Member State. All this requires legal analysis, and possible harmonisation, before standardisation in a technical sense can be carried out.
154. The EDIFACT group for bank message development (EDIFACT MD 4B) and in particular the direct debit working group of EDIFACT have started to look into these issues; however, some Member States (Spain, Ireland, Portugal) are absent from this group. Moreover, while the work of this group should certainly be encouraged and should continue, it seems desirable to study the legal issues in particular in a more generally based group. The European Banking Federation is already taking this issue forward. A group is being set up under the Federation to consider procedural and legal issues. Any resulting standard matters would be considered by the appropriate standards body, be it EDIFACT or the Committee for European Banking Standards being established by the European Credit Sector Associations.

#### Cheques and cards

155. The future role of cheques and cards in the area of RCBP was not discussed in depth by the Group. This omission did not reflect any Group view that their role was likely to be unimportant, or unproblematic. It signifies instead that this subject was not specifically included in the Commission's work programme for the Group, coupled with the fact that the short life of the Group precluded it from exploring items that were not included therein.

## E. NEXT STEPS

156. In the light of the foregoing analysis, a series of steps should be taken as soon as possible if significant improvements in RCBPS are to be effected. Most will facilitate improvements in a wide variety of RCBPS.

### Standards

157. Agreement among banks on certain key standards used in payment systems - e.g. bank identifier codes should be secured. The soon-to-be formed CEBS will play a major role in this and should be given every encouragement from the Commission, e.g. when it comes to request status as an Associated Standardising Body (ASB). A study has already been carried out to determine its immediate work programme.

### Legal issues

158. Work on various legal issues in the field of payments should commence forthwith in view of the long gestation period involved. A Commission working party should be established to undertake this task.

### Competition policy

159. The guidelines on Community competition policy with regard to systems used for cross-border transfers that are set out in Appendix 5, should be published and consistently applied. Competition policy should also be effectively enforced in other areas such as the telecommunications sector which provide vital inputs for RCBPS.

### Central banks

160. Further work is needed on access criteria at a general level, by the Commission as well as by central banks. Central banks should explain their prudential concerns with specific payment systems as consistently, and as expeditiously, as possible.

### Reporting requirements

161. The Commission services should urgently explore with the competent authorities the feasibility of raising the minimum threshold for reporting cross-border payments in the Community to at least 10.000 ecu, and of introducing more efficient, electronic, reporting procedures in those Member States where they do not yet exist.

### Data protection

162. The Commission should amend those features of its proposed Data Protection Directive which have been identified in this report as likely to impede the construction of more efficient RCBPS without advancing the objectives of the Directive, when it comes to redraft it in the light of its forthcoming first reading by the European Parliament.

#### ACH linkages

163. Further investigation of the possibility of linking ACHs and equivalent systems is required given the potential advantages such a system holds.

#### Third country dimension

164. The steps outlined above, and others recommended in this report, should be coordinated where possible, and appropriate, with those taken outside the Community. Continued dialogue, and liaison with key third country "players" and international organisations (e.g. ISO, G10, UNCITRAL) will be necessary for this to come about.

#### National dimension

165. The development of more efficient domestic payment systems in Member States which currently possess relatively inefficient systems is vital if the benefits of all other "action" in the field of RCBP is to be maximised.
166. The Group should reconvene for one meeting in March 1993 - a year after the publication of this report - in order to assess whether the proposals recommended therein have been acted upon, and if not what should be done about it.



## APPENDIX 1 - TERMINOLOGY

**ACH (Automated Clearing House)**: an electronic clearing system, in which data on payment orders are exchanged by magnetic media or via a telecommunication network and handled by a data processing centre. See also clearing.

**Bank**: credit institution, in the meaning of article 1 of Directive 77/780/EEC of 17/12/1977.

**Batch**: the transmission or processing of funds and/or securities transfer instructions as a set at a single point in time.

**Beneficiary**: means the person designated in the originator's payment order to receive funds.

**Cheque guarantee card**: a card issued as part of a cheque guarantee system. If the cheques are written with a valid guarantee card, they are, up to a specified amount, guaranteed by the issuing/drawee bank (may sometimes be combined with another function e.g. a cash card or debit card).

**Clearing (or clearing system)**: a set of procedures whereby financial institutions present and exchange data and/or documents relating to funds or securities transfers to other financial institutions at a single location (clearing house). The procedures often also contain a mechanism for the calculation of participants' bilateral and/or multilateral net positions with a view to facilitating the settlement of their obligations on a net or net net basis. See also netting.

**Confirmation**: the process by which a market participant notifies its customers of the details of a trade.

**Correspondent banking**: an arrangement under which one bank provides payment and other services to another bank. Payments through correspondents are often executed through reciprocal accounts (so-called nostro and vostro accounts), to which standing credit lines may be attached. Correspondent banking services are primarily provided across international boundaries but are also known as agency relationships in some domestic contexts.

**Credit card**: card indicating that the holder has been granted a line of credit. It enables him to make purchases and/or draw cash up to a pre-arranged ceiling; the credit granted can be settled in full by the end of a specific period, or can be settled in part, with the balance taken as extended credit. Interest is charged on the amount of any extended credit and the holder is sometimes charged an annual fee.

**Credit transfer:** one or more payment orders, beginning with the originator's payment order, made for the purpose of placing funds at the disposal of the beneficiary. In the course of a credit transfer, payment orders may be transmitted through separate credit transfer systems.

**Customer:** is to be clearly defined as originator (the person who issues the transfer order) or beneficiary (the party to whom the funds are allocated through the crediting on his account or through the sending of a statement enabling him to receive payment of the funds).

**Debit card:** card enabling the holder to have his purchases directly charged to funds on his current account at a credit institution (may sometimes be combined with another function e.g. that of a cash card or cheque guarantee card).

**Direct debit:** debit on the debtor's bank account initiated by the creditor, based on the prior written agreement of the debtor.

**Direct participant:** participation in (or membership of) an interbank funds transfer system or a securities settlement system may be direct or indirect either as regards the exchange of payment orders and/or as regards settlement. A direct participant exchanges payment orders and/or settles directly with other participants; an indirect participant uses a direct participant to exchange orders and/or to settle on its behalf. See also settlement member.

**Electronic Data Interchange (EDI) and EDIFACT:** electronic exchange of data between commercial entities (including in some cases public administrations) on the basis of universally accepted standards for both the subject matter and the format of the messages. Data pertain to a wide spectrum of message categories such as ordering, invoicing, customs documents, remittance advises and payments. The standardisation process is carried out under the umbrella of a United Nations body called EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport).

**Electronic funds transfer at point-of-sales (EFT POS):** transfer by electronic means of payment information from a terminal at a retail location which is designed to capture, and in some cases also transmit such payment information.

**Face to Face payments:** refer to payments carried out on the spot (e.g. by a person travelling to another country) between a resident and a non-resident.

**Final settlement:** settlement of the obligations between two parties by irrevocable transfer of credit across their accounts at a defined settlement institution.

**Funds (or money)**: includes credit in an account kept by a bank and includes credit denominated in a monetary unit of account that is established by an intergovernmental institution or by agreement of two or more States.

**Gross settlement system**: a transfer system in which each credit transfer or debit collection order is settled individually (i.e. without netting debits against credits).

**Interbank funds transfer system**: a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardised arrangements for the transmission and settlement of money obligations arising between the members; the transfers may be made for the members' own account or at the request of their customers (on either an agency or principal basis). Interbank funds transfer systems include gross or net settlement system.

**Large value transfer system (or wholesale transfer system)**: interbank funds transfer system through which large value and high priority fund transfers are made between banks for their own account or on behalf of their customers. Though as a rule no minimum value is set for the payments they carry, the average size of payments through such systems is relatively high. The scope of "wholesale" or "high value" or "relatively high" has not yet been defined precisely in the context of the Commission's work.

**Netting (or netting schemes)**: an agreed offsetting of positions or obligations by trading partners or participants in a system. The netting reduces a large number of individual positions or obligations to a smaller number of positions. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties.

**Originator**: means the issuer of the first in a series of payment orders

**Payments**: Payments refer to both remote payments, whether carried out by credit transfers, cheques or other means, and face-to-face payments, whether carried out by Eurocheques, cards or other means.

**Payment order (or payment instruction)**: an order or message requesting the transfer of funds (in the form of a claim on a third party) to the order of the beneficiary. The order may relate either to a credit transfer or a debit transfer. Relevant are written and in particular electronic orders.

**Prepaid card**: a card "loaded" with a given value, paid for in advance.

**Remote payments**: imply the process of sending a payment across a border by an originator remaining in his country of residence.

**Retail transfer system:** interbank funds transfer system which handles a large volume of payments of relatively low value in forms as cheques, small credit transfers, direct debits, and payments at the point of sale; the scope of "retail" or "low value" or "small credit transfer" has not yet been defined precisely in the context of the Commission's work.

**Settlement:** completion of a payment or the discharge of an obligation between two or more parties. Frequently used to refer to the payment or discharge of interbank transactions or a series of prior existing transactions. See also final settlement and gross settlement system.

**Settlement agent:** the institution initiating the final settlement of a clearing, on behalf of all participants.

**Settlement finality:** refers to the point at which the final and irrevocable transfer of value has been recorded in the books of the relevant settlement institution. The timing of a settlement can be any of the following: immediate, same day (end of day), next day.

**Settlement institution:** the institution across whose books transfer takes place to achieve settlement.

**Settlement member (or participant):** a member of the system that holds a settlement account at the settlement institution. Non settlement members settle their positions using a settlement member).

**S.W.I.F.T. Society for Worldwide Interbank Financial Telecommunication** an international financial transaction message network. Created and owned by banks, the network is also available to some categories of non-bank institutions.

**Systemic risk:** the risk that the failure of one participant in an interbank funds transfer system or securities settlement system, as in financial markets generally, to meet his required obligations will cause other participants or financial firms to be unable to meet their obligations when due.

**Tiering arrangement:** an arrangement allowing a bank which does not directly participate in funds transfer (or securities settlement) systems, to operate through the services of another bank, which is a member of the system. See also direct participant.

**Truncation:** a procedure in which the physical movement of paper items within a bank or between banks is curtailed, being replaced by the transmission of all or part of their content in electronic form.



**APACS**

A P P E N D I X 2

**CROSS-BORDER PAYMENT  
SYSTEM INFRASTRUCTURES**

**Association for Payment Clearing Services**  
Mercury House, Triton Court  
14 Finsbury Square  
London EC2LA 1BR  
Telephone 071-711 6200  
Fax 071-256 5527

**November 1991**

## ***I INTRODUCTION***

There is a wide variety of remote payment mechanisms available to individuals and small and medium-sized enterprises for the transfer of value from one country to another. These payment mechanisms cover the spectrum from the use of cash, through cheques and correspondent banking arrangements, to automated systems such as SWIFT. The purpose of this paper is to set out the basic payment mechanism infrastructures. Existing payment systems can then be compared to these infrastructures in order that potential gaps or shortcomings in the services offered to customers can be identified. The choice the customer has to make between the use of one or other of the mechanisms offered by the banking industry and outlined in this paper will depend upon factors such as:

- the value being transferred;
- the cost incurred in, for example, currency conversion and commission for the transportation of the funds;
- the risk of loss through theft, fraud or failure of the system; and
- speed

These last three issues - costs, risk and speed - are among the consumer's main concerns in making a cross-border payment.

## ***II PAYMENT SYSTEM INFRASTRUCTURES***

### ***1 Common Elements***

The common elements in any payment system which need to be considered in constructing any such system are set out below. The list is in terms of a cross-border system and therefore includes currency conversion.

- (a) Type of payment
- (b) Message format
- (c) Routing identifier
- (d) Carrier
- (e) Currency conversion
- (f) Membership and access
- (g) Settlement arrangements
- (h) Time-cycle
- (i) Security
- (j) Charges.
- (k) Reporting requirements

#### ***(a) Type of payment***

For any system there needs to be agreement as to whether it will handle debit or credit items, or both, paper or automated/electronic items, individual items or batched items and whether there will be any maximum or minimum set for the value of items to be handled.

#### ***(b) Message format***

In the transmission of any payment between two parties, it is necessary for each party to understand the message. This can be achieved either by using a common format for the message, i.e. the same "language" or by each party being able to convert the messages sent into the recipient's format or convert messages received into its own format. There are considerable advantages in using a common format, in particular where a system may need to be able to expand. With a common format new members simply adopt that and there is minimum disruption to the system: otherwise each time a new member joins existing participants have to change their systems to accommodate conversion into, or out of, the new member's format.

There are a number of common formats already in use internationally, for example in SWIFT, or being developed, for example, through UN/EDIFACT. Any new payment system could adopt one of these existing standards, which would be a quicker solution than devising a new standard.

**(c) Routing identifier**

In transmitting any payment between payer and beneficiary it is necessary to be able to identify the beneficiary's address, be it a home address for the use of the post, or the address of a bank account. Identifiers are thus required to route the payment to the correct receiving point.

Domestic payment systems already have standards for these identifiers such as numbers for identifying banks and their branches, often known as sorting codes, and account numbers. There are also some internationally used identifiers such as the Issuer Identification Number in card systems or the SWIFT Banking Identifier Code (BIC) which is a country and bank identification code.

When linking systems or developing a new system there is the question of whether to develop a new system of routing identifiers or to adopt existing systems, for example by using an existing international identifier in conjunction with domestic sorting codes and/or account numbers as required. Constructing a new standard would not only be very time-consuming, it could also cause considerable disruption to existing payment systems and could be very costly if it required significant re-investment in equipment.

**(d) Carrier**

Whatever the payment system used, be it the sending of a cheque in the post or a sophisticated electronic payment system, it is necessary to identify an appropriate carrier to provide a network or communication link between the parties and to determine the functionality of such a carrier. In some payment systems a number of carriers may be used, in others there will be one carrier. In some, public networks are used, in others, a private network may be introduced for the use of the system. Examples of the networks already used in the banking sector and available for automated links are SWIFT, VISANET and EPSS. Alternatively the information can be transferred by the physical exchange of tapes or disks.

**(e) Currency conversion**

A number of issues arise here, namely whether conversion takes place, where it takes place, which currencies are handled by the system and how the rate of conversion is set.

If the sender initiated the payment in the recipient's currency, e.g. from a currency account, conversion would not be needed. It also might not be needed if the payment was sent in a third currency in which the recipient wished to receive the payment, and which was drawn on a currency account.

The point of conversion may be at the sender, be it the sender's bank or his national/domestic clearing house, or at the point of receipt, again by either the recipient's bank or the national/domestic clearing house. From the sender's viewpoint, transparency is aided if the conversion is undertaken at the sending point, so that the cost of conversion and commission is apparent. This assumes, of course, that the sender has initiated the payment in his local currency and the recipient wants to receive a sum in his local currency.

It is possible to set up a payment system to handle a single currency, or multiple currencies. The decision as to which currencies it will handle is a matter for the parties involved.

Setting the rate of conversion can be undertaken in a number of ways depending on the degree of competition required. At one extreme it could be a single rate set by agreed national authorities. At the other extreme it could be a matter left to the discretion of each bank to set different rates for different customers.

The use of one European currency would, of course, overcome some of these issues.

**(f) Membership and access**

In any system it is necessary to determine the membership structure and arrangements for access to the system. These will depend on a number of considerations, the paramount being the need to maintain the operational and financial integrity and efficiency of the system.

There are three basic structural models. The first model is of direct membership only i.e. where all participants in the system are direct members and hence participate in settlement; and take full operational and financial responsibility for their transactions. The second model is of direct membership and indirect access, i.e. where there are a number of direct members who participate in settlement and take operational and financial responsibility for the system, and a number, usually larger, of indirect participants who have access to the system under the sponsorship of one or more of the direct members. Physical access to the system may be through a member, or participants may be able to input and receive items directly. Settlement will be achieved through the accounts of their sponsoring member.

The third model is the same as this second model, except that in addition customers are allowed direct access to the system e.g. the right to input tapes directly to an automated clearing house. This is not linked to membership as these are customers of members, but is a practical way of handling their input and offering service to the customer.

It can be seen from these models that it is possible to construct payment systems such that an institution which wants to participate need not take on the costs and responsibilities of full membership. This is particularly advantageous for smaller institutions who wish to be able to offer certain payment services to their customers, but who do not have sufficient business to make full membership in a particular payment system cost-efficient.

The other advantage of this dual system of direct membership and indirect access is that it is possible to set the criteria for membership so as to reduce the risks of prejudicing the integrity and efficiency of the system. These are criteria such as a requirement to be appropriately supervised and to satisfy the settlement institution of the ability to meet settlement requirements.

**(g) Settlement arrangements**

Settlement may be effected in payment systems in a variety of ways, through bilateral links or through a single settlement body. The aspects to be considered in deciding the appropriate settlement arrangements include the risks involved, the size of sums being handled, the number of parties involved, and the required time-cycle for settlement.

For cross-border payments the options would be:

- bilateral settlement through correspondent banking links
- settlement through central banks in each country
- settlement directly between clearing houses in each country



- settlement through a single settlement body in each country which is not the central bank
- through a single settlement body for the whole system
- through an amalgam of some of these e.g. some countries having a single settlement point, others with a number of settlement bodies.

The BIS recently published a report of its committee on interbank netting schemes (the Lamfalussy report) which set out six standards for cross-border and multi-currency netting schemes and six principles for the cooperative oversight by central banks of such systems. These would need to be considered in establishing the settlement arrangements for any cross-border payment system.

#### (h) Time-cycle

There are a number of elements to the time-cycle in a payment system. There is the question of the time-table for delivering items to the transmission point, e.g. the delivery of a tape to the clearing house, to ensure that they are processed within a certain time-scale. There is the time-cycle for processing, the time-table within which items have to be received for settlement on a certain day, and the time-table for settlement itself. The end-to-end time-scale for processing a cross-border payment is very difficult to judge because of the mix of automated and manual systems used. This mix will differ from country to country and this difference will be reflected in the time-scale.

There is also the question of when finality of payment is achieved, which is as much a legal question as one of time-tables. Added to this is the issue of whether or not a payment is revocable and if so what the time-table is for revoking a payment. Finally there is the issue of the time-table for dealing with errors, e.g. returned items.

Obviously, decisions as to what these time-tables should be cannot be taken in isolation from considerations about practicalities such as the particular systems being used and the parties involved.

#### (i) Security

Consumers' concerns about the risk of loss of a payment through fraud or systems failure can be accommodated by the introduction of security features and contingency mechanisms. The level of security required may vary from system to system depending not only on the characteristics of the system itself, but also on the type of payments being handled.

Contingency arrangements should cover not only possible fall-back systems, but also procedures for handling errors.

#### (j) Charges

The charges in any system fall into two categories, first the charges between the participants and secondly charges to the customer. The latter are a matter for the individual bank and its customers. As regards charges between the participants, these may be inter-bank charges, or inter-clearing house charges and/or charges made by the clearing house on its members. Depending upon the national (eg Office of Fair Trading in the UK) or regional (eg DG IV) requirements, the charges may be agreed bilaterally between the different parties or be at an agreed rate. For example, where an existing network was used as carrier, part of the contractual agreement would relate to the charge for use of the network. It is not always necessary to have inter-bank or inter-clearing house charges, but Competition is normally best served by free negotiations, although this may be impractical in a system with a large number of members.

(k) **Reporting requirements**

The reporting threshold for cross-border payments differs from one Member State to another. Indeed, not all Member States have such a requirement. In developing a cross-border payment system it would be necessary to have regard to this. For example it might be more convenient in a system handling retail payments if the maximum value to be transmitted was related to the lowest reporting level for individual Member States.

**2 The Basic Infrastructures**

This section sets out the basic infrastructures which are available. The aim is to show the various possible mechanisms which may be used, although for ease of reference the first two are described in relation to particular payment instruments.

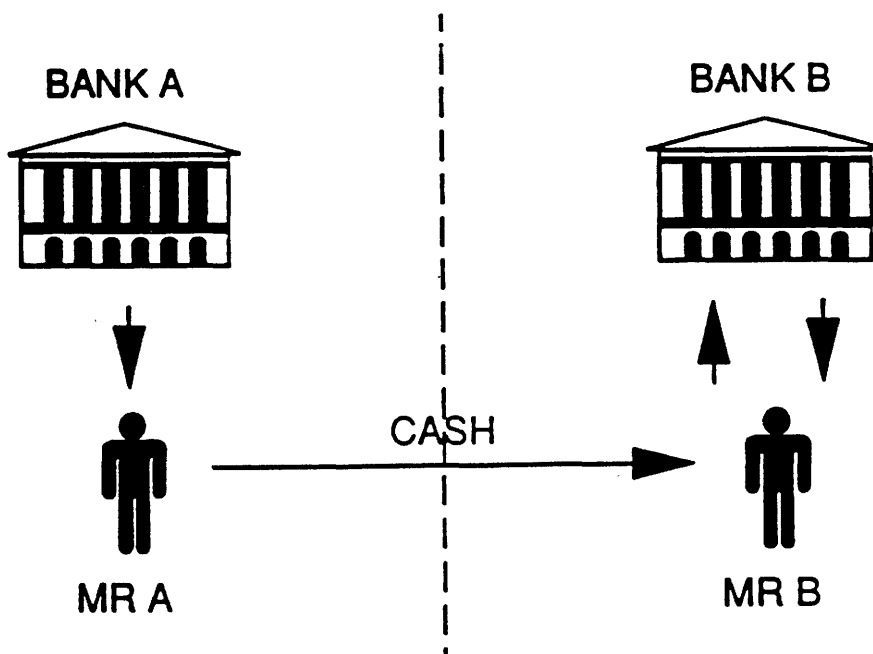
The various environmental issues listed under Section 3 relate to each infrastructure to differing degrees.

(a) **Cash**

The exchange of cash, the simplest payment medium, only requires the two parties concerned i.e. the paying party (the payer) and the party being paid (the beneficiary) and the means of transmitting the cash between them. The third party involvement will be the carrier i.e. the means used to transmit the cash and a body to undertake currency conversion if required. The example of this type of cross-border payment which follows raises many of the issues involved in the use of other systems or payment media.

(i) **Payment in sender's currency**

- Mr A withdraws money in currency A from his bank, Bank A.
- Mr A puts cash in post to Mr B.
- Mr B receives the cash and takes it to his bank, Bank B, (or bureau de change) to exchange for his own currency, currency B.



In this case Mr A knows the cost of transportation i.e. the cost of the postage stamp. He does not know the cost of the currency as he does not know the rate which Mr B will be charged for converting into currency B. Mr A cannot be sure, therefore, that Mr B will receive a particular sum.

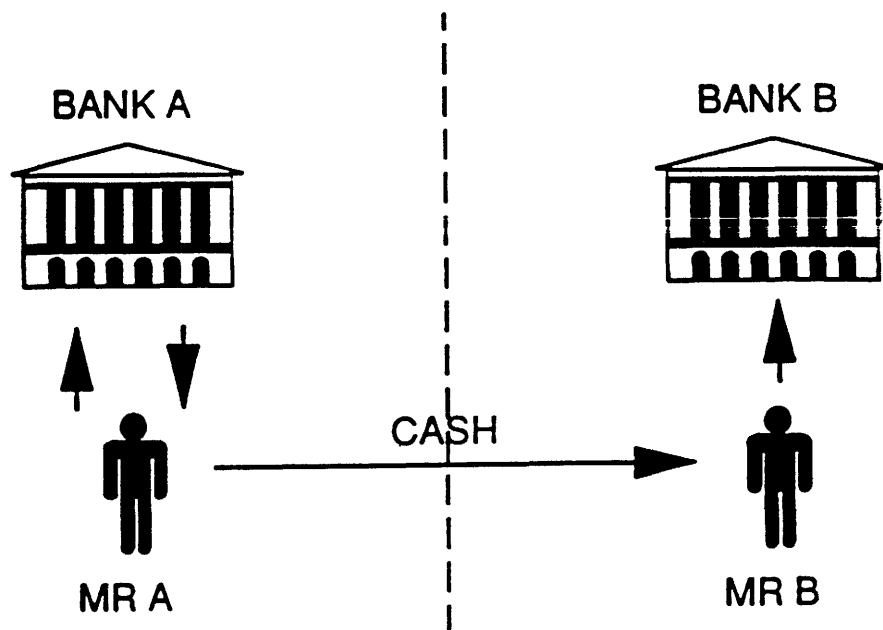
There is a risk of loss, through error, fraud or failure. The envelope might be delivered to the wrong address, or the address might be incorrect. The envelope might be opened in transit and the money stolen. The postal system might fail and the envelope might never be delivered. Mr A has no control on these factors, although he may wish to pay for extra security by sending the envelope by, say, registered mail, or take out insurance.

Finally, Mr A cannot be certain of the time the payment will take. He may know the average time taken to deliver such a letter in normal circumstances, but he cannot guarantee that time-table unless he chooses to pay for extra certainty by sending it via a specialised delivery service.

The issues for the payer are lack of transparency, the risk of loss and the time the payment will take.

(ii) Money sent in receiver's currency

Mr A can gain greater certainty in terms of the cost of currency by converting his money, currency A, into currency B at his own bank, Bank A, and sending Mr B the money in his own currency. Mr A then knows how much the currency has cost and that Mr B will receive a set amount, which he can spend or pay into his account with Bank B.



The issues for the payer now reduce to the risk of loss and the time the payment will take.

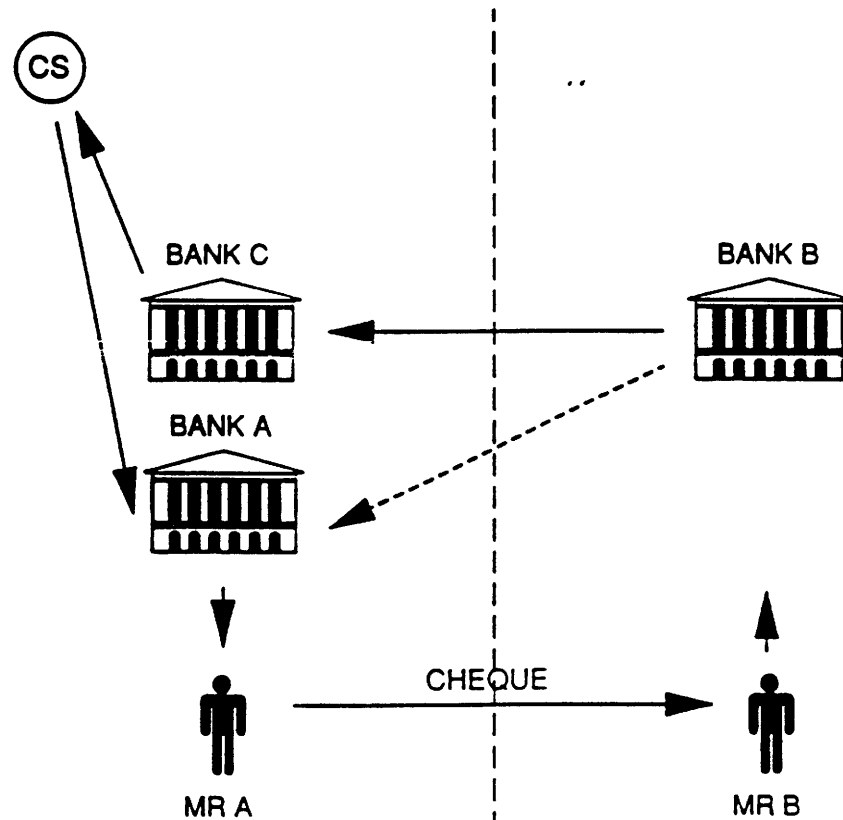
(b) **Cheque**

When a cheque is used for making a cross-border payment, the process is as follows:

(i) **Domestic cheques**

- Mr A writes a cheque from his own cheque book, drawn on Bank A, in currency A, and posts it to Mr B.
- Mr B takes the cheque to Bank B.
- Bank B sends the cheque, for collection, to its correspondent bank in country A. This may be Bank A or another bank, Bank C.
- Where Bank C is involved, they will send the cheque for collection to Bank A through their domestic clearing system (CS).
- Bank C obtains value in currency A, converts to currency B and the necessary credits and debits are entered on the accounts in countries A and B.

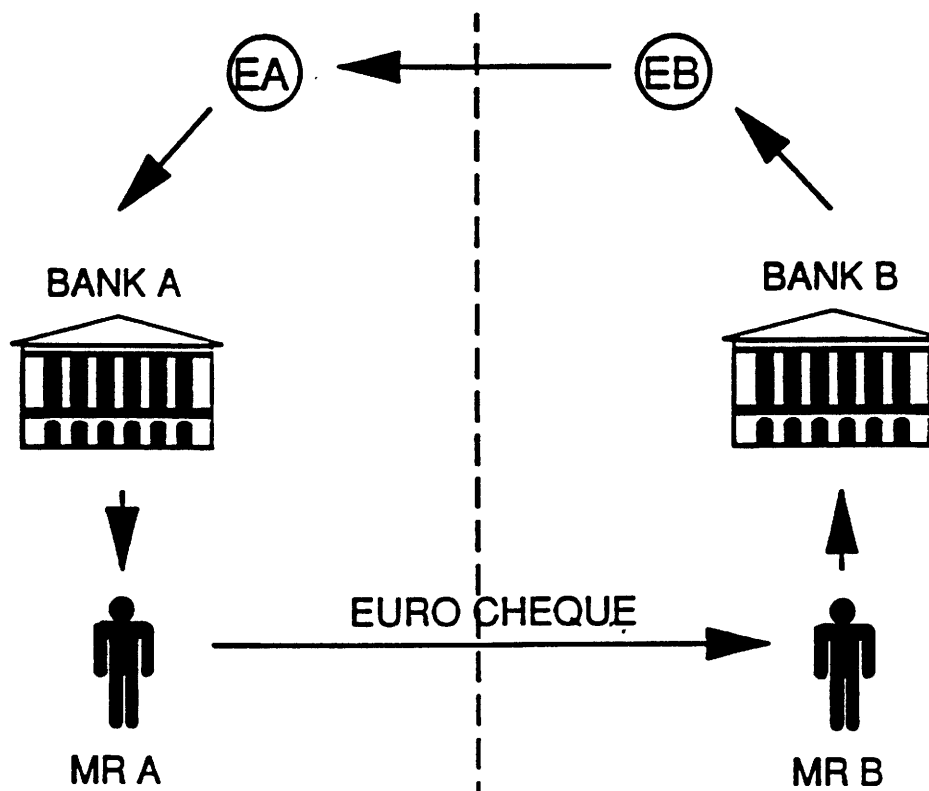
Similar arguments apply here as with the cash model. Mr A does not know the conversion rate which will be used, or any fees which Bank B will levy on Mr B. Neither is he able to know the time which the transaction will take, particularly if Bank C is involved. Mr A knows the cost to him of sending the cheque to Mr B, but does not know the cost of transportation of the cheque from Bank B to Bank C and through the domestic clearing system to Bank A. Costs are likely to exceed the value of low-value cheques.



The issues for the payer are transparency and the time the payment will take.

(ii) **By eurocheque**

An alternative would be for Mr A to send Mr B a eurocheque written in currency B. Mr A would bear the conversion costs in due course and would send Mr B the exact amount concerned. Mr B would take the eurocheque to Bank B for collection. It would then be passed through the national clearing centre (EB) to the clearing centre (EA) in country A for collection. Mr A would be charged the conversion and other costs when the cheque, or a truncated version thereof, returned to Bank A.



Competition policy and consumer protection are issues for consideration in relation to the operation of the eurocheque scheme. For the payer, the time the payment will take is the principal issue. The ultimate charge to the payer is unknown at the outset and this fact may be of concern to the payer.

(c) **Bank to bank**

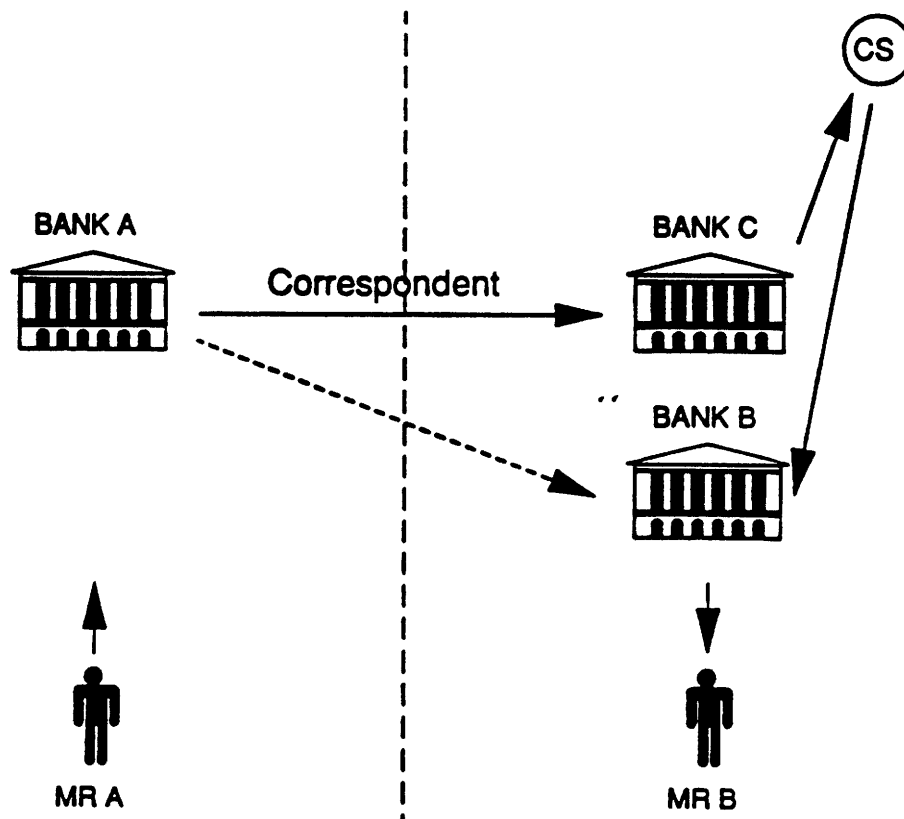
These links may be direct or via some form of switch or network. Essentially a **direct link** is a bilateral arrangement. In the simplest case, the sender's bank and the recipient's bank are correspondents. Here, there is no need for a separate settlement system or for compatible formats since no cross-border clearing is necessary; local clearing is effected in each country via the domestic system.

The fundamental difference from the previous examples is that Mr A does not send payment direct to Mr B, who then has to arrange to collect that payment. Mr A deals with his bank, requesting them to transfer funds to Mr B's account.

The procedure is as follows:

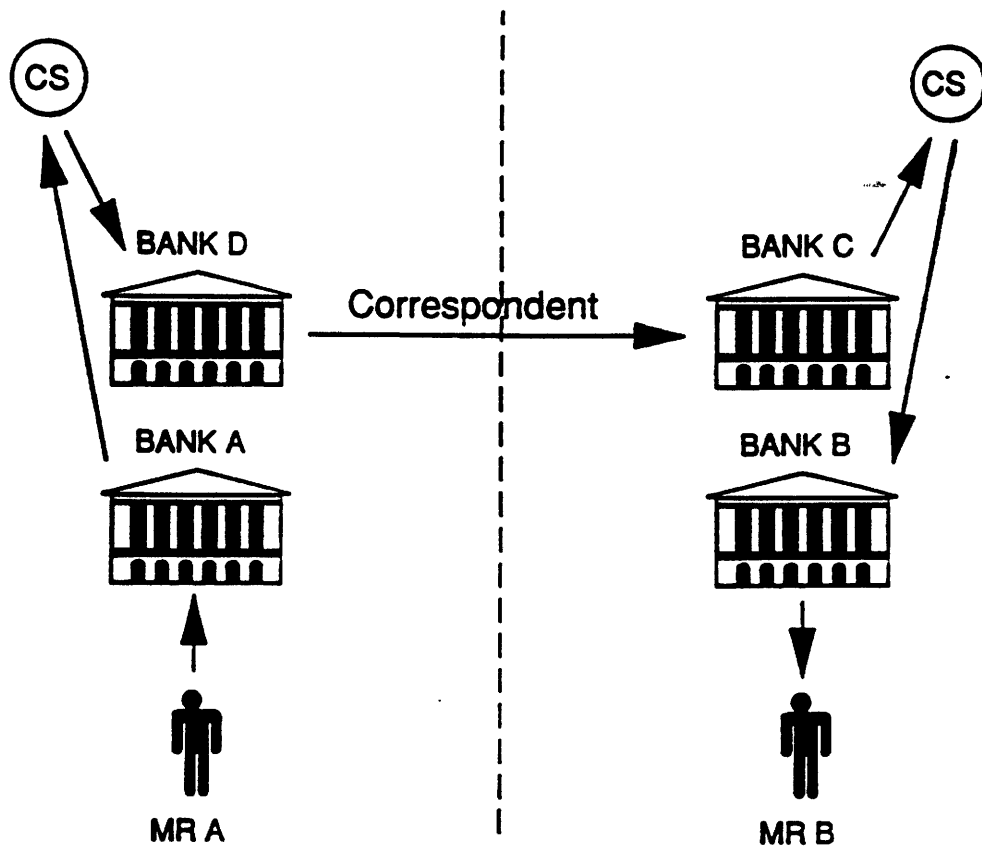
- Mr A instructs his Bank A to pay Mr B. This instruction could be for a payment in currency A or B or a third currency, eg ecu.
- Bank A arranges payment with its correspondent in country B. This may be Bank B or may be another bank, Bank C.
- If the correspondent is Bank B, Mr B is paid directly into his account.
- If the correspondent is another bank - Bank C - then payment will need to be made through the domestic clearing system (CS) to Bank B.

Issues of transparency and of currency costs are as in previous examples. It should be noted that many correspondent banking relationships operate on a manual basis.



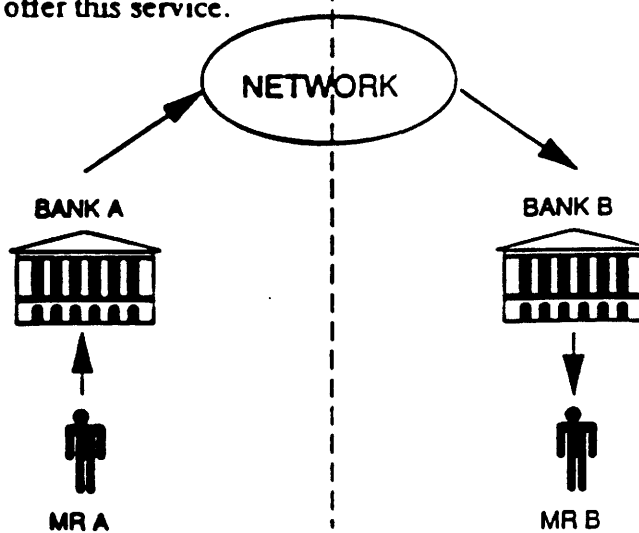
The payer may be unaware of the time the payment will take which will be dependent upon national systems and the procedures of receiving banks will differ from country to country. The beneficiary is likely to incur a charge for the processing of the payment by Bank B and this cost is unknown to the payer, transparency is therefore an issue.

A more complicated case is where the sender's bank, Bank A, does not have a correspondent in the country of the recipient's bank so the payment has to be routed through a bank in country A which does, Bank D. That bank's correspondent may or may not be the recipient's bank. Where it is not, the payment has to go through a further stage in each country's domestic system before reaching the recipient's bank. Thus, in this example four banks would be involved.



One way of avoiding these problems is to use a gateway into a switch or network, which offers a means of transmitting a message from Bank A to Bank B but offers no added value, rather than having to rely on bilateral relationships. In this way, multiple handling is also largely avoided.

In one model of such a system a payment message would be sent by the member banks through a gateway into such a network. An existing service provider, or another third party provider, could offer this service.



The issues for the payer remain unchanged for all these variants of the generic bank to bank relationship. There would, in addition be issues regarding the integrity of any third party network provider which is not controlled by the banks. The risk which may ensue from involving non-banks in the provision of a payment systems service requires careful consideration.

**(d) Automated Clearing House to Automated Clearing House (ACH to ACH)**

In this scenario, the sender (eg a business/corporate customer) can either input directly to his domestic ACH or ask his bank to make the input on his behalf. The bank or domestic ACH makes the currency conversion. The domestic ACH then transmits the payment message to the recipient ACH in the country of the recipient's bank, where the payment can be handled as a domestic item.

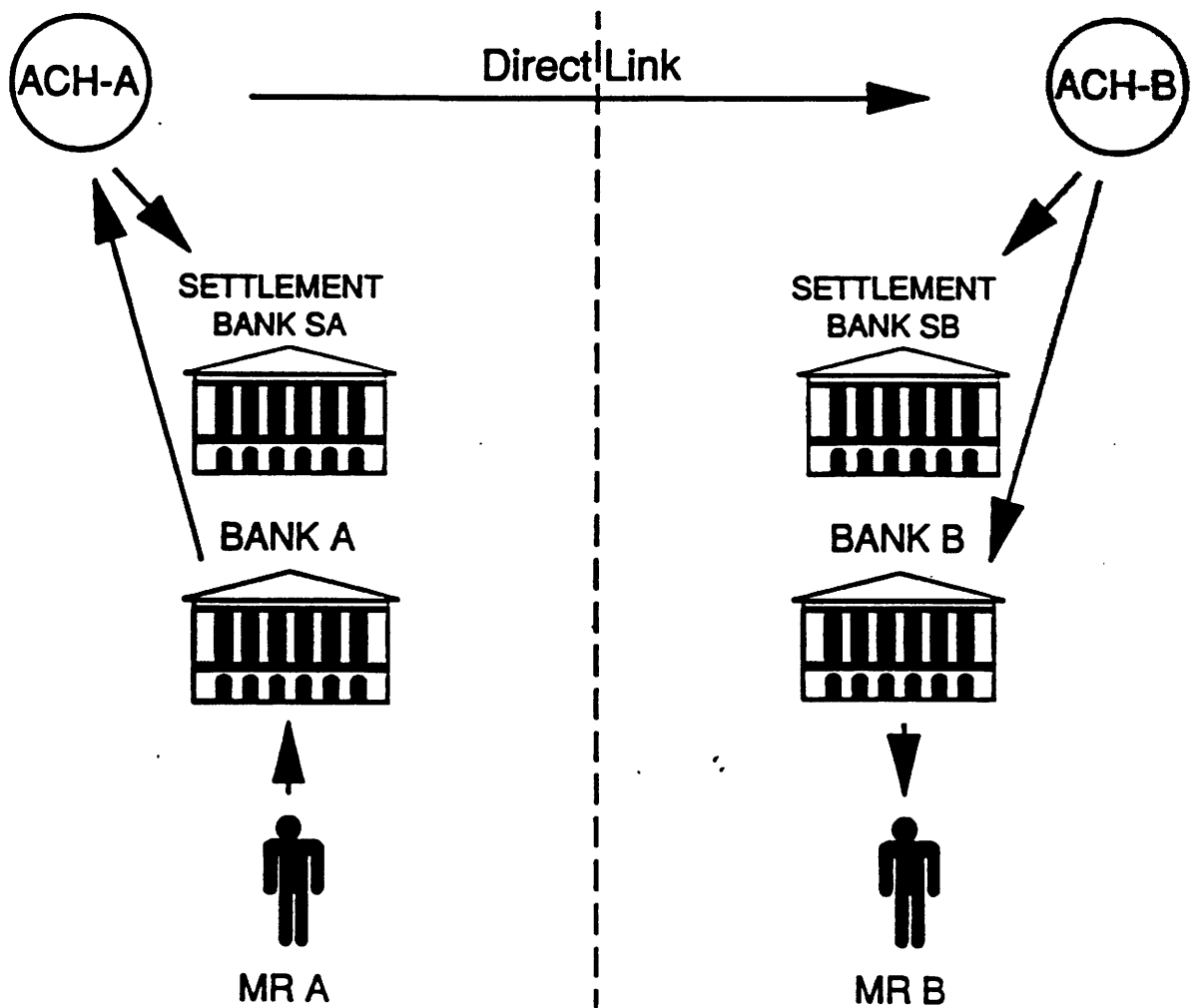
Settlement could be performed by means of a designated bank (eg the central bank) in the country of each ACH or by means of correspondent banking relationships.

The following example of this scenario is based on a credit instruction:

- Mr A instructs Bank A to make a payment to Mr B.
- Bank A submits the payment details to ACH-A.
- Currency conversion is conducted by Bank A or ACH-A.
- ACH-A transmits the payment message to ACH-B.
- ACH-A also transmits settlement details to the settlement body, say settlement Bank-SA.
- ACH-B out sorts the information received and transmits to Bank B.
- Settlement Bank SA informs settlement Bank SB of the details of settlement and their respective accounts with each other are credited and debited in the normal way i.e. as with a correspondent bank link.
- Settlement Bank-SB informs Bank B of the receipt of the payment value.
- Bank B credits Mr B's account.

For ease of reference the examples which follow are set out in terms of a single ACH. It may be, however, that in a particular country there is not a single ACH, or that the ACH operates as a distributed system rather than being in a single physical location. This should be borne in mind when looking at the various infrastructures.



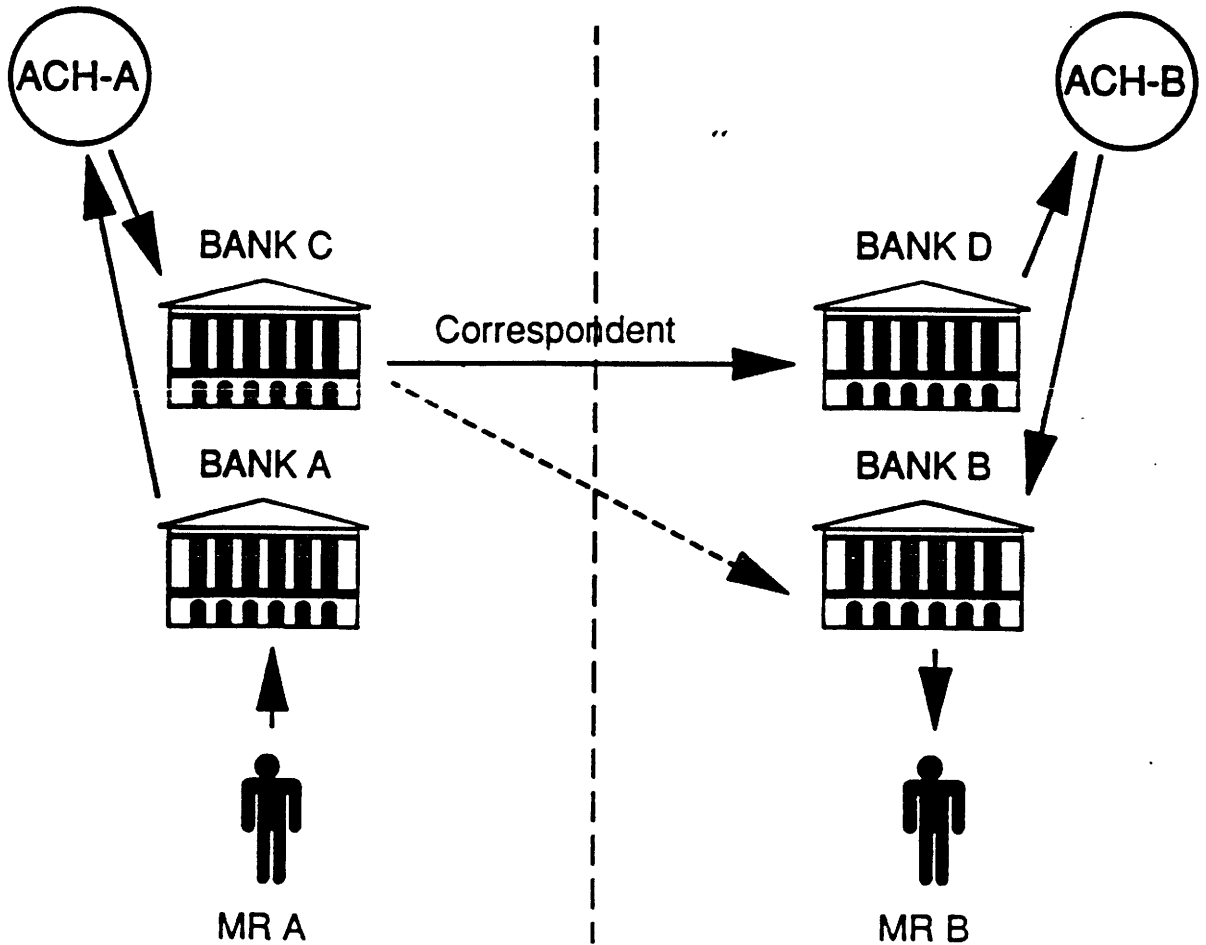


The payer is likely to have transparency of payment insofar as the currency conversion is made at the bank or ACH in the sending country. He may not be aware, however, of any charges levied by Bank B on Mr B. The risk of loss is no longer a concern for the customer because of the secure transmission systems offered by the banks, although there is a risk of delay to a payment due to the provision of wrong or inadequate data by Mr A. The need for accurate data is important. Some uncertainty may still remain regarding the time the payment will take because of differences in national systems and the internal/branch network procedures of the receiving bank.

In a variant of the previous example a number of the operations can be sub-contracted to an intermediary or intermediaries. The message transmission between ACHs could be performed using correspondent banking relationships with format and currency conversion being undertaken by a nominated bank, as exemplified below. The correspondent banking relationship is also used for settlement.

In this instance the sequence of events is as follows:

- Mr A instructs Bank A to make a payment to Bank B.
- Bank A submits the payment details to ACH-A.
- ACH-A transmits the message to Bank C.
- Bank C transforms the message into the format for the recipient ACH-B.
- If Bank B is the correspondent of Bank C the payment to the account of Mr B can be made directly.
- If the correspondent is another Bank - Bank D - then the message, in the format of ACH-B, is sent to Bank D.
- The account of Mr B is credited through the domestic clearing via ACH-B.
- Settlement is realised through the correspondent banking relationship.

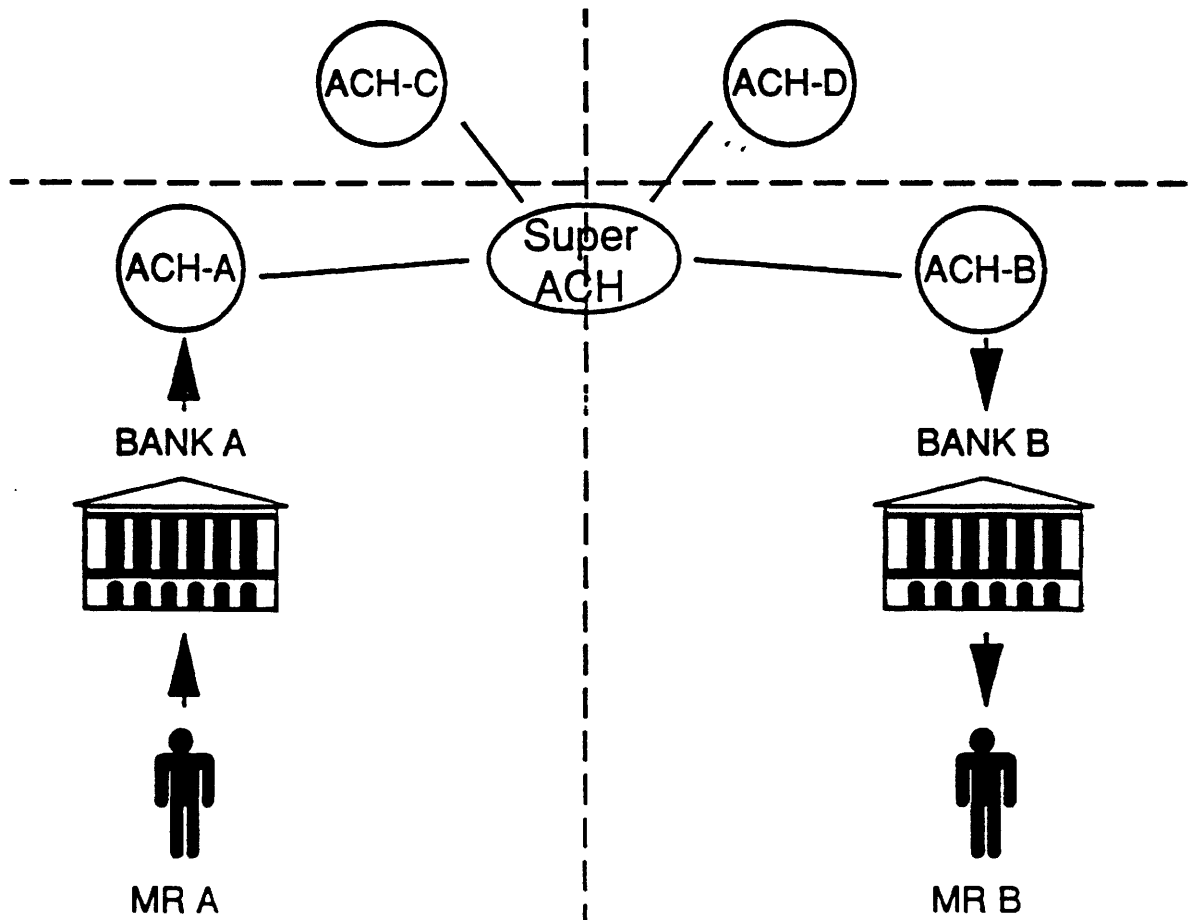


A further variant illustrates the incorporation of a 'Super' ACH which is a principal at the hub of the link between ACHs.

The process here would be:

- Mr A instructs Bank A to pay Mr B.
- Bank A sends the payment message with others to ACH A.
- Currency conversion is conducted by Bank A or ACH-A.
- ACH A sorts out the messages for other participating countries, including that with Mr A's payment, and sends them to the Super ACH for onward transmission.
- The Super ACH sorts the messages received by destination ACH and sends the message about Mr A's payment to ACH B.
- ACH B sends the payment to Bank B for Mr B's account.

Settlement could be by a number of methods - correspondent relationships, between central banks A and B, between the ACHs or over accounts at the Super ACH.



In the post-1992 Single Market, with membership of an ACH being open to those banks throughout the Member States which meet the criteria of domestic systems, then the following cross-border payment mechanism could be used.

In this model Mr B's bank B, would be a member of the ACH in country A.

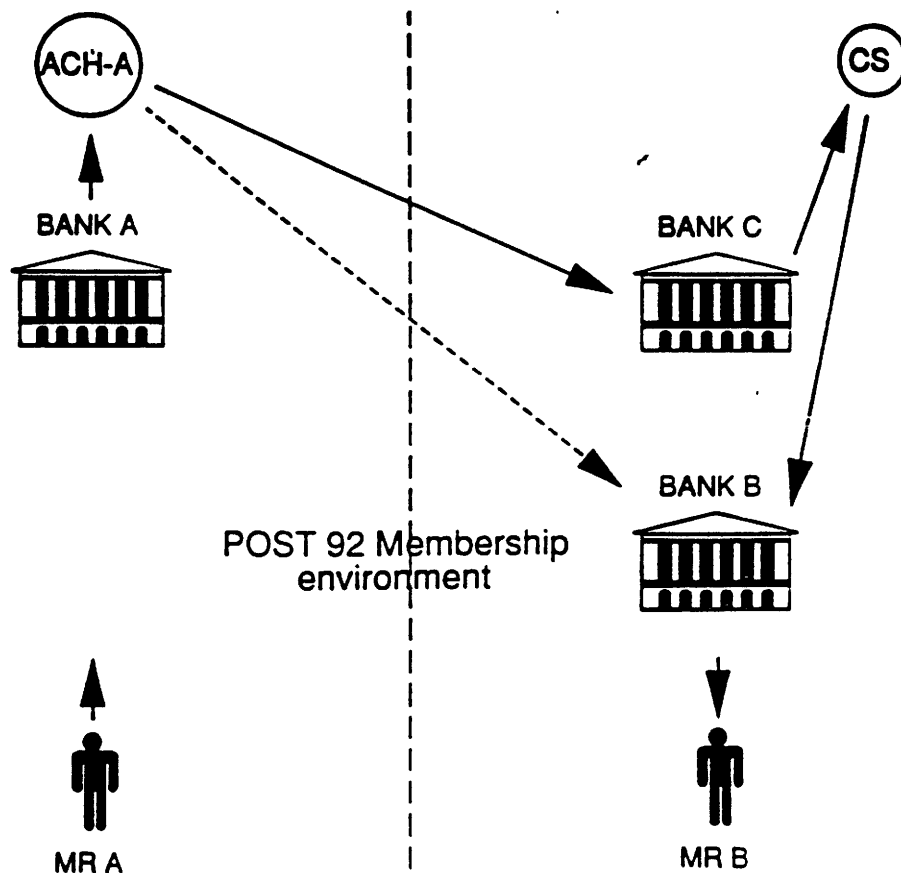
Hence:

- Mr A instructs his bank to pay Mr B.
- Bank A sends the payment to ACH-A.
- Currency conversion is conducted by Bank A or ACH-A.
- ACH-A outsorts the payment to Bank B.
- Bank B credits Mr B's account.
- Settlement could be done in a number of ways.

or, alternatively Mr B's bank is not a member of ACH-A, but has a link with a bank - Bank C - which is.

Hence:

- Mr A instructs Bank A to pay Mr B.
- Bank A sends the payment to ACH-A.
- Currency conversion is conducted by Bank A or ACH-A.
- ACH A outsorts the payment to Bank C.
- Bank C transmits the payment to Bank B through the domestic clearing system.



Alternatively the reverse may apply; namely, that Bank A is a member of ACH-B.

**Clarification of the interpretation of the Second Banking Coordination Directive as regards membership of clearing systems, including ACHs, is urgently required if concerns regarding the integrity of such a payment system are to be avoided.**

(e) **Mixed system**

A mixed system could operate for banks in countries without an ACH or for non-member banks in a country with an ACH. It is not a system as such, more an ad hoc arrangement whereby payments to and from such banks can be incorporated within an ACH to ACH set-up.

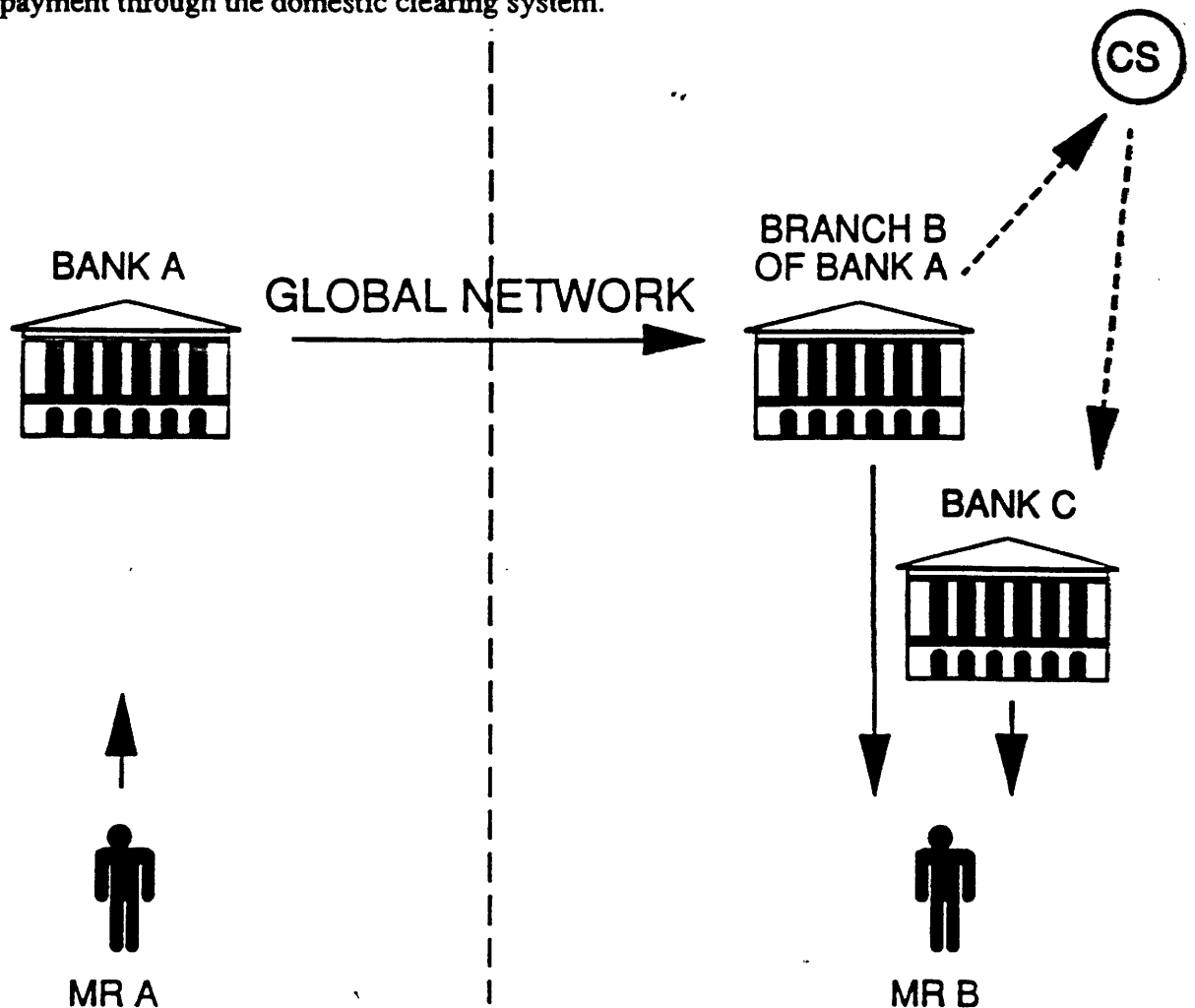
In this instance, the sending country is part of an ACH to ACH system. Therefore the sender sends his batch of overseas payments to the ACH directly (or via his bank) in the normal way. Amongst his payments, however, is one to a country without an ACH (or to a non-member bank in an ACH country). The sending ACH could then send the payment to a nominated bank in the recipient country which would then forward the payment, by whatever means practicable, to the recipient's bank within the pre-determined timetable. Obviously the main difficulty here is ensuring the integrity of the system in the receiving country and the complication of settlement arrangements.

(f) **Global network**

In this system, Bank A has a branch in country B, to which it is linked through its internal network. This would also relate to a network of a 'family' of banks such as the Giro banks or Cooperative banks.

The process is as follows:

- Mr A instructs Bank A to pay Mr B.
- Bank A transmits the payment message to its branch or 'family' bank in country B.
- If Mr B banks with another bank - Bank C - then Bank B will have to arrange for payment through the domestic clearing system.



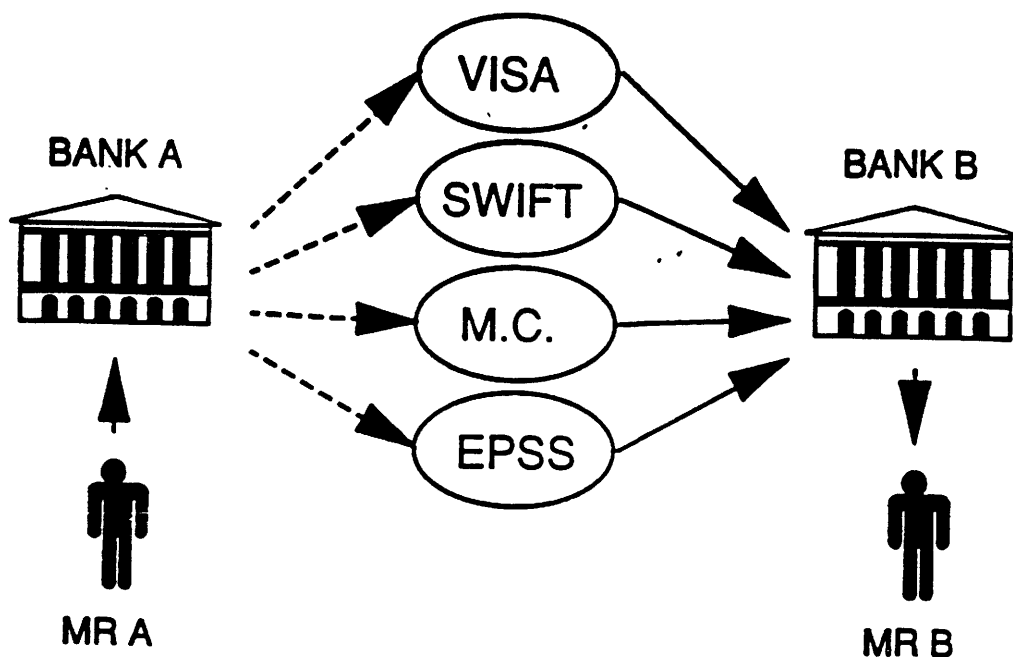
(g) **Third party networks offering added value**

In this scenario, Bank A and Bank B are both linked to third party networks which offer added value such as currency conversion and settlement, e.g. VISA, SWIFT, MasterCard, EPSS.

- Mr A instructs Bank A to pay Mr B.
- Bank A inputs the payment to the network.
- The payment is transmitted to Bank B.
- Bank B credits Mr B's account.

Settlement can be undertaken in a number of ways.

This model raises a number of questions, not least legal and risk issues, about the roles of the various parties, particularly if the network is responsible for arranging settlement.



### **3. Environmental Issues**

There are six main issues concerning the environment in which payment systems operate, which affect the structure of those systems, namely:

- Membership
- Legal framework
- Competition policy
- Consumer protection
- Risk
- Technology

#### **3.1 Membership**

It is unclear how the Second Banking Coordination Directive affects the membership rules of private and public clearing houses. The Directive introduces the principle of the freedom of establishment, which means that all institutions authorised in one Member State to conduct banking business are free to do so in the other Member States. The definition of banking business given in the Directive includes the provision of money transmission services, but it is not clear what this implies for clearing house membership. It is imperative that the operational and financial integrity and efficiency of payment systems is maintained, one means of which is to set criteria which ensure that certain operational and financial requirements are met by the members of any system. Clarification of this issue will assist the development of cross-border payment mechanisms in Europe.

#### **3.2 Legal framework**

There are many aspects of payment systems which depend on the legal framework in place, ranging from finality of payment to insolvency law. In a cross-border system the issues are less easy to resolve as the legal framework may differ in the countries involved. This situation would, of course, be improved by the harmonisation of legal systems. In the meantime, it is essential for the parties in any payment system to know under which legal jurisdiction particular aspects of the payment system operate.

#### **3.3 Competition policy**

Payment systems depend on a balance of cooperation and competition. Cooperation is necessary to provide the structure of the system and agree on common elements, as referred to earlier, such as standards for message formats, settlement arrangements and so forth. Competition is also necessary to provide choice to the user and ensure the quality of the product he receives.

It is essential, therefore, that competition policy permits cooperation and agreements on the essential elements of any payment system. One of these elements, as identified earlier, is membership criteria and it is also necessary for competition policy to permit the setting of open and objective membership criteria to protect the integrity and efficiency of any payment system.

#### **3.4 Consumer protection**

Consumer protection considerations may impact on payment systems development in a number of ways. The system may be structured so as to meet particular consumer requirements. For example, it may be agreed that currency conversion in a particular system will be undertaken at the sending point in order to aid transparency. Likewise clear rules as to how payments are handled and where liability lies at any point in the system should also aid the consumer.

### **3.5 Risk**

Concern about risk in payment systems, particularly the risk of the failure to settle by a member, is a topic which is receiving much attention currently. It may impact payment systems in a number of ways such as in the need for clear membership criteria, the possible application of value limits on the items handled, and any requirements to build exposure limits into the system. The implication of the Lamfalussy principles must be borne in mind when considering risk in payment systems. The extent to which risk is important depends on the type of system and the payments it handles. It is a more significant issue for systems handling large-value payments than for those handling retail payments.

### **3.6 Technology**

As technology advances, it enables new system designs to be introduced. It also affects elements such as security where more sophisticated techniques can be used.

## **4. Consumer Concerns**

The four main questions for the consumer when using a payment system - the costs involved, of currency and transportation, risk of loss and time taken - were identified earlier. This section considers each in turn in relation to particular system models.

### **4.1 Cost of currency**

The consumer is obviously concerned to ensure that he is charged a fair price for his currency, but is also concerned to know what that price will be. The extent to which this can be achieved will depend on the structure of the system and the point of conversion. In the simplest example, of exchanging cash, the consumer knows the cost of the currency if he converts it prior to sending it. If he leaves the recipient to convert the currency then he does not pay conversion costs, but does not know when it will be converted, the rate of exchange and the sum received by the beneficiary. This is true for any cross-border payment system between countries with different currencies. However, it is not always appropriate for the conversion to take place at the sender's or initiator's end of the transaction within a timescale which enables the information to be provided before or at the time of the transaction. The recipient may have asked to be paid in the sender's currency. The "sender" may have initiated a debit to an account for a future date for which the exchange rate is unknown. In these and other cases it is not possible to know in advance either when the conversion will take place, or the rate at which it will be done.

### **4.2 Cost of transportation**

Transportation costs will vary according to the service offered and the method used. Just as with the postal system consumers can pay extra for an enhanced service - e.g. speedier delivery and extra security - so this can be the case with cross-border payments. Some consumers will wish to pay for increased security, or certainty of delivery on a particular day. Others would prefer to use cheaper methods of sending payments. The important feature is that they are aware of the options open to them and the tariff or likely charges.

In electronic payment systems the costs are greatly affected by the cost of telecommunication services, which can vary widely from one country to another. Hence the competitive pricing of telecommunication services is an important issue.

Another significant element of transportation costs, in some systems, is the cost of converting payment orders from manual to electronic form.



### **4.3 Risk of loss**

The example of a cash payment set out earlier showed the types of loss which might occur and these also relate to non-cash payment systems. There is the risk that an error may be made, say in the information given about the beneficiary's account, and the payment may not reach the correct "addressee". This risk can be limited, however, by having arrangements for checking the veracity of the data, for example by the use of a test key or check digits which verify the information given. The risk of loss can also be reduced by ensuring that there are adequate error handling procedures so that if a payment does not reach its correct destination it can be returned and re-submitted with correct details.

There is the risk of fraud, but this is reduced by introducing security arrangements and mechanisms. The extent of these may vary according to the type of payment being handled.

Finally the risk of systems failure is reduced by checks on the system itself, but the risk of failure of the payment is also reduced by having suitable contingency arrangements so that even if the system does fail the payments can be made through a back-up system.

In all of these cases it is important for the consumer to know where liability lies for any error or loss, to whom he has recourse for complaint and from whom he can obtain redress if necessary.

### **4.4 Time-taken for payment**

The length of time taken to process a particular payment will depend on the number of parties involved and the system used, as well as on the type of instrument. In most payment systems which operate to a given time-table e.g. for delivery of items, processing and settlement, it is possible to give the consumer information about the normal time-cycle of the payment clearing process itself. It should be noted, however, that if any error or systems failure takes place then this time-cycle may not be met.

It is also important to appreciate that it is not always possible to know when initiating a payment what the value-dating policy of the recipient's bank is. This will affect the time at which the beneficiary actually receives value.

It is also not always possible to identify in advance how many parties will be involved, for example if the sender's bank does not have a correspondent banking link with the beneficiary's bank, and what timetables they will be working to.

Finally, with certain items which are sent direct to the beneficiary rather than through a bank, e.g. cheques, the sender cannot know when the beneficiary is going to present the item for payment.

There are many reasons, therefore, why it is not always possible to be clear in advance as to the timetable for the transfer of value to the beneficiary. It is, however, normally possible for the sender to request that the payment reaches its destination within a certain timescale, but this may necessitate using a more expensive form of payment.

### **III FUTURE DEVELOPMENT**

The preceding sections have shown the variety of elements which combine to make a payment system. There is a great number of possible combinations all of which have different characteristics and cater for different market needs. The market is best served, therefore, by ensuring that there is a variety of provision and competition between service providers. It is also important that there is the necessary cooperation to provide systems which enable the parties involved to take advantage of the increased efficiencies and economies of scale, which are beneficial to both providers and users of payment systems.

It is necessary, therefore, that there are no artificial obstacles which prevent that cooperation or which prejudice the provision of competitive services. The Commission has identified a number of areas where obstacles might exist and these are discussed in detail in separate papers.

There are, however, four such obstacles which seem worthy of mention here - competition policy, legal environment, data protection and standards.

#### **1. Competition Policy**

Freedom to compete is essential to enable banks to offer a variety of services to customers and to provide the customer with a choice of products. However, it is also essential that some degree of cooperation is permitted so that the parties in any payment system can agree on the infrastructure of the system such as technical and operational standards and time-tables. It is essential that this ability to make agreements for cooperation is clearly established prior to developing any new payment systems, and competition law needs to be clarified on this point.

One of the areas of agreement which is necessary is that of membership criteria. Here the position is not clear under either competition law or the Second Banking Directive. Again, it is essential that the setting of open and objective membership criteria is permitted in the interests of maintaining the integrity and efficiency of payment systems.

#### **2. Legal Environment**

There are a number of areas in which legal clarity would be beneficial such as finality of payment, the legality of netting schemes and insolvency law. In addition, some harmonisation in the legal treatment of payments might be beneficial.

It would also be helpful if the intentions of the Commission regarding the UNCITRAL work could be clarified.

#### **3. Data Protection**

It is essential that payment systems are able to carry out the data processing required to transmit payments, which may include elements of personal data. Current proposals for a data protection directive could prejudice this and therefore need to be adapted to reflect the practicalities of payment systems.

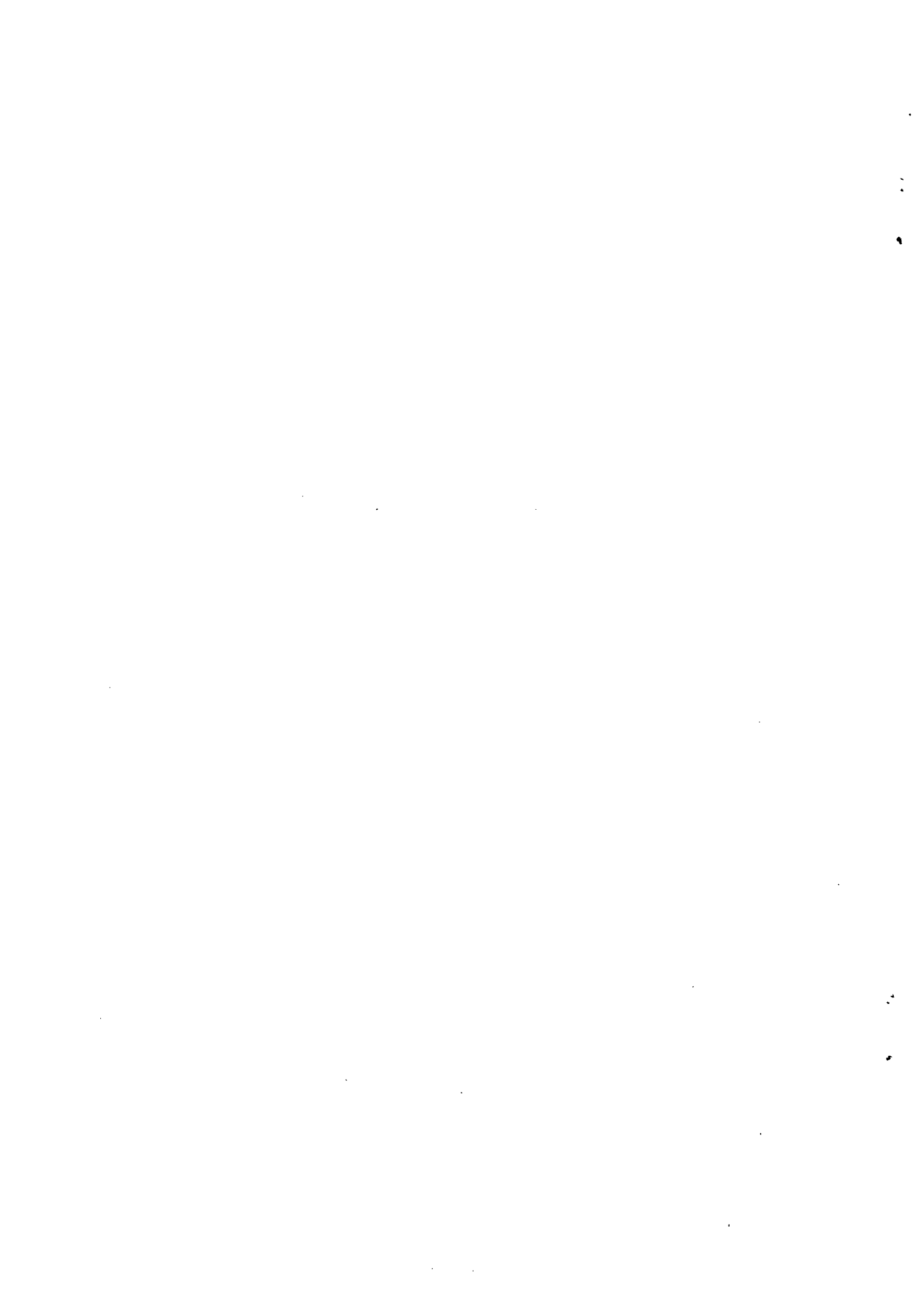
#### **4. Standards**

One element is constant throughout all consideration of payment systems development, and that is the importance of standards. These may be generic technical standards, may relate to particular applications or may be operational standards. In any case, agreement on standards enables the interaction of parties and the smooth running of systems. The development of standards is therefore an area for priority attention, as recognised by the banking industry in its work to establish the industry's Committee for European Banking Standards.

#### *IV CONCLUSION*

The perception of the advantages and disadvantages of different payment systems differs from customer to customer since they all have different requirements. No one system can provide for all customers' various needs. In general customers are looking for efficient payment systems which are provided at a reasonable cost, and for the information to be able to make informed choices as to which system best meets their needs. Banks want to be able to cooperate on essential issues such as standards, which will facilitate the provision of payment systems, but also to compete on the products and services offered, and to be free to choose which payment systems they wish to join or participate in.

This is best summed up in the statement of the banking industry's aim which is to provide a range of secure, efficient and robust payment systems to meet the differing needs of all sectors - government, markets, businesses and personal customers - at a fair price for the service provided and within a competitive environment.



## **THE ROLE OF STANDARDS IN THE DEVELOPMENT OF EUROPEAN PAYMENT SYSTEMS**

### **INTRODUCTION**

The Commission has recognised the important role that standards have to play in the elimination of technical barriers to trade and has accordingly stated that the realisation of appropriate standards has become an "economic objective". This paper assesses whether, in particular, the lack of appropriate standards are in effect an obstacle to the development of the cross-border payment systems which will meet the needs of the post-1992 internal market in EEC Member States.

The development of standards for cross border payments should either reflect international requirements or, if developed at a system or regional level, should be capable of acceptance by the international community. In the context of the foregoing, SWIFT provides a good example where bankers developed a SWIFT standard for message types (MT500) which was then subsequently processed through ISO into an international standard.

It is clear that standards have an important role to play in the development and operation of payment systems be they national, regional or international. This importance is nowhere more apparent than in the post-1992 internal market where the development of appropriate European standards will facilitate the creation of an environment in which European payment systems can evolve. These standards will be those which are required to produce efficient, economic and secure payment systems to meet the growing needs of the internal market. Commonly accepted standards in themselves are not necessarily a pre-requisite for the development of individual systems as is evidenced by the introduction of the pan-European Giro network. However, for comprehensive interchange between systems there is a need for standards to be set so that the efficiency and integrity of systems may be maintained. The standards which provide for the foregoing may be categorised as addressing either technical, application or operational needs.

### **TECHNICAL STANDARDS**

These are standards, typically intersectoral, which provide an international, regional or national public domain technical specification. These are the generic standards which form the basis of the infrastructures which support the current payment systems. Typically these generic standards are the X25 interface protocol for networks; the machine readable characters, such as CMC7, OCRA, OCRB and E13B which are used on cheques; and the magnetic stripe material, which is now used extensively as a storage medium on plastic cards. Choices exist, as exemplified by the machine readable codelines and inevitably Member States have adopted different methodologies (eg CMC7 in France; E13B and OCRB in the UK) and this aspect is returned to later in the paper. There is a wide range of technical standards in existence which are widely used throughout the industry.

Looking to the future, it is clear that new technologies such as image processing will give rise to a need for a technical standard which the banking industry will wish to use as and when image processing is used in payment systems, be they national or cross border. In addition, it is clear that Electronic Data Interchange (EDI) will be used extensively in the future and this is reflected in the work being undertaken on the creation of an EDI syntax standard developed by UN/EDIFACT.

## **APPLICATION STANDARDS**

These are standards which cover the requirements of one sector or particular systems within that sector or system and are developed by that sector for the use of that sector or system alone. Typically, they use the technical standards as a foundation for the addition of those requirements which are specific to an industry or applications within an industry. At the industry level an application standard could be exemplified by cheque codeline formats, magnetic track data formats, or the Primary Account Number (PAN). At the level of system specific application, this type of standard becomes a specification, such as those in place for payment systems such as SIT, BACS and CHAPS. These standards, which differ from one system to another, are created by the members of the system, but may be based on sectoral application standards or technical standards.

## **OPERATIONAL STANDARDS**

These standards cover the agreements which have to be reached upon the operation of individual systems. This includes legal matters and consideration of issues such as procedures, service levels, settlement, supervision, membership criteria and contingency. These are matters for consideration by the parties who have the responsibility for and undertake the liability regarding the system so as to ensure the integrity and efficiency of that system. Such standards may be legislative, eg the legal requirements regarding evidence, or voluntary, ie agreed among the members or participants in the system.

### **Procedures**

In running any payment system it is necessary to have agreements as to the procedures to be adopted over and above specific technical standards.

Procedure agreements may include matters such as the procedures for returning items unpaid and conditions under which special presentations can be made. These are matters usually contained in the rules of the clearing house.

### **Service levels**

The Members of a payment system or clearing may agree minimum levels of service, for example a guarantee that, in normal circumstances, payments received by a certain deadline will be processed by a certain time, such as in the same business day. These do not detract from the level of service given to customers, rather they ensure that a minimum level is offered to all customers.

### **Settlement arrangements and finality of payment**

All payment systems require a means of effecting settlement. Agreements are required as to how settlement is to be achieved and the procedures to be followed for agreeing settlement totals and so on. This may also include agreement as to the point at which settlement can be considered final, although this is a legal as well as a standards issue and includes consideration of the issue of risk. Setting a standard for the point at which settlement is final is a matter of agreement between the settlement institution and the Members of the system. In most cases the onus is on the central bank as settlement body. Insofar as any central bank or settlement institution was unwilling to agree to finality of payment at a standard time, then this could form an obstacle to developing a particular payment system.

### **Supervision and liquidity standards**

Setting standards for the supervision of Members of payment systems and for supervision of systems themselves is an important element in ensuring the continued integrity of, and public confidence in, payment systems. Standards for the general supervision of credit institutions are set by the appropriate authority in each Member State, although increasingly minimum standards are agreed between these authorities as has been necessary to establish the single licence concept of the Second Banking Co-ordination Directive which, of course, has the force of legislation. Liquidity standards, however, remain a matter for the host supervisor. In addition, the settlement institution in any payment system may wish to set standards against which the granting of settlement status is measured, and standards for the management of settlement accounts.

### **Membership criteria**

Agreement on standard membership criteria is also a feature of most payment systems. The aim is to ensure that all Members can meet the standards set for operating in the system, be they technical, procedural or financial standards. Such standard criteria ensure that the system is not jeopardised by admitting a company who cannot operate to the standards set, that public confidence in the system is maintained and that customers do not suffer. The operational and financial integrity of a system could be prejudiced if a new Member were unable to meet its commitments in the area, the standard time-table, or be unable to adopt agreed settlement procedures.

### **Contingency**

It is usual for the Members of a payment system to agree contingency arrangements to be adopted in the event of an operational failure in the system. If these are to work then each Member must be able to meet the standards set for contingency operations.

## **CREATION OF STANDARDS**

The bodies which undertake the standards work just described are diverse. Nationally, regionally and internationally the intersectoral technical standards are developed, legitimised and placed in the public domain by the national standards bodies, CEN and ISO respectively. The application standards development is undertaken in the public and private domain by sectoral bodies. An example of system-specific application standards development is the regional cooperation amongst European Savings banks, which has resulted in the creation of Eufiserv - an ATM network with its own application standard. National, regional or international operational standards may be developed by a commercial grouping of interested parties who comprise a system such as eurocheque or, at a national level, a payment system such as SIT.

The cooperative sectoral standards activity by the banking community in Europe is being coordinated by the Banking Federation, the Savings Banks Group and the Association of Cooperative Banks who are setting up a Committee on European Banking Standards (CEBS). It is intended that this body will produce proposals to CEN on public domain technical standards and create sectoral application standards - some of which will also be in the public domain - to meet the identified needs of the European banking industry. For standards to be placed in the public domain, a formal consultation procedure for manufacturers and consumers will take place after the document has reached a mature stage. [This will be of particular importance in the development of European payment systems.] The creation of system-specific application standards or of operational standards will, on the other hand, be realised by the relevant operational grouping or system.

## **INSTRUMENTS/MECHANISMS**

The concomitant increase in cross border payments in Europe consequent upon the post-1992 internal market is likely to give rise to the creation of new payment instruments and mechanisms which will be facilitated by new European standards in all three of the categories cited in this paper. The new instruments and mechanisms will evolve as the opportunities presented by the internal market become evident. It is, however, already possible to identify aspects of current cross border payment systems where changes are likely to occur and for which standards may need to be created.

### **Cash**

The provision of cash by means of ATMs is widespread throughout Europe and linkages between nationally-based ATM networks have been, and will continue to be, forged on the basis of commercial considerations so that it is possible to use ATM facilities as one moves from one country to another. The Visa, eurocheque, Eufiserv and Nexus systems are but four examples of the providers of this cross border facility. The internationally agreed technical standards which make this interchange possible are already in place.

In the event of the introduction of a single currency in the EEC member states, it would be necessary for the ATMs in these countries to be able to handle this currency as the sole currency dispensed. European standards for the ATMs dispensing the currency would be required at that time.

### **Paper debits**

A variety of domestic cheque and codeline formats are used in the countries of the EEC. The investment in each Member State in the provision of systems which are based on these domestic formats has been considerable. In addition, there is a general move throughout the Community to encourage the use of 'electronic' instruments such as debit cards which, together with the possible use of financial EDI, will lead to a reduction in the use of cheques. In such an environment it would be economically impractical to seek the introduction of new equipment and systems based on a standard pan-European cheque codeline. Such a course could not, in any event, be introduced at a stroke and would therefore necessitate two codeline systems running side-by-side for some considerable time which would cause confusion to customers who would be holding two cheque books, and necessitate considerable additional expense in the running of duplicate systems - a cost which would have to be passed on to the customer in charges. However, eurocheque is a European paper debit instrument which has overcome the aforementioned problems. Indeed, the recent increase in the value limit will now make this instrument even more attractive for cross border payments. Should the super European cheque concept, as proposed by the Forum of Private Businesses, be accepted then there will be a need to consider how this might be made to work.

### **Debit Transfer**

There will be scope in the internal market for the creation of new instruments to meet market demands. One such, is the proposal by French bankers for a European debit transfer. This will be a topic for consideration within the banking community and application and operational standards will be created to meet the identified needs. This new instrument would enable banks and their corporate customers to promote a means of cross-border payment which has proved to be successful in many European countries.



### Paper credits

The situation with regard to paper credits is the same as that detailed for debits. Widespread cross border use of paper collection credits (eg payment to suppliers) depends upon codeline standardisation, whereas dispersal credits (eg payroll and dividend payments) can be presented using the domestic codeline for subsequent automated processing.

The German bankers have come forward with a suggestion regarding a European payment using a standard format for electronic cross border messages but permitting each member state to use their own national standards for the paper instrument. This will be a topic for discussion by the banking industry and where appropriate standards might prove necessary.

### Linking of ACHs or institutions

The linking of ACHs, or indeed institutions or groups of institutions, would provide facilities capable of handling both regular payments and one-off payment instructions. There are a range of ways in which the interface between these may be achieved. For example, outgoing payments could be translated into the format required by the recipient or, alternatively, a common interchange format could be developed. In order to minimise costly conversion operations in the initiating or receiving countries whenever a new ACH link is forged, it would be convenient to use a common interchange format which could be the SWIFT MT100 or BULPAY with possible future evolution into EDIFACT message types. Nonetheless, banking industry application and, maybe, operational standards will be required so that the linkages can operate efficiently and the integrity of the network may be maintained. These standards will probably cover:

- i) the message format to be used if a common interchange protocol is to be adopted - this could be based upon a SWIFT or UN/EDIFACT technical standard;
- ii) an operational standard to specify where and how the currency conversion is conducted - is it the responsibility of the sender, the recipient, or both, and is only one rate applied for each currency or should each remitter or receiver be permitted to apply a competitive rate;
- iii) interface protocol from each national ACH format to the common or independent ACH format - an application standard; and
- iv) operational arrangements for settlement.

All these are issues which the banking industry would be able to address in the CEBS and/or as part of discussions between European ACHs or institutions.

In addition, there is a need for the customer to comply with standards if a direct or indirect interface into an ACH or institution may be achieved. This is an operational standard promulgated by the ACH or institution which enables input by a customer. An example of such a standard is that which permits customers to directly input into BACS.

### Bank-account identifiers/authenticators

In the context of paper credit, debit and interchange there will be a need to agree standards for bank identifiers so that payments may be routed correctly. This will be an application standard which could be the Bank Identifier Code (BIC) used by SWIFT. This provides routing to banks and would require extending at a national level to route to branch level. The use of the BIC with an extension to incorporate branches could be implemented at a national level without causing undue disturbances to existing systems. In addition, the field specification for the account number will need to be agreed so that payments may be posted automatically.

In addition a proposal has been made for the development of a European integrity key - an application standard - to reduce the number of rejected items and enable the return of items to be automated. A standard for message and operation-type identifiers may also prove to be necessary.

Both of the foregoing topics will be considered by the banking industry in the CEBS as the discussions on cross-border payment systems develop.

### Card-initiated transactions

The standards for interchange using magnetic stripe cards issued by the banking sector have formed the basis for the cross border activity with such cards which is evident today. These standards - work upon which is either completed or underway - cover aspects such as authentication of the participants to the transaction, namely the cardholder, card and terminal; the authorisation of the transaction; and the clearing and settlement of the transaction.

The creation of standards to ensure the use of the IC card as a multi-sector instrument in Europe is being addressed by CEN with the full participation of the banks.

### CONCLUSION

The standards required by the banking industry to meet the needs of cross border payment systems in a cost effective manner are many and varied. In the public domain they are being dealt with internationally under the procedures laid down by ISO and UN/EDIFACT, and in Europe within CEN. To expedite the input of technical standards into CEN and the creation of banking sector application standards the CEBS is being created. It would be appropriate that this body should be accepted as a banking sector Associated Standardising Body (ASB) by CEN. Such a move would be in the spirit of the proposals embodied in the Commission Green Paper on the Development of European Standardisation: Action for faster technological integration in Europe [doc: COM(90)456]. The creation of the CEBS, and the intention to apply for ASB status, indicates the desire of the banking industry to participate in the creation of an environment in which the payments systems in the internal market can flourish to the benefit of all.

The banking industry recognises and accepts the vital role it has to play in the creation of standards. These standards should, wherever possible, be based upon existing international standards. Where these do not exist, new standards would be created which maintain the integrity of existing systems by creating the minimum of disruption and, in addition, provide the opportunity for competition and commercial initiative.

The participation of the European banks in the standardisation work of ISO, UN/EDIFACT, CEN and now CEBS indicates that the industry is capable of ensuring that the standards which are necessary for cross-border activity are produced in good time. The industry acceptance of the urgency now attached to the creation of standards in Europe is evidenced by the creation of CEBS. The infrastructure for the creation of technical and application banking standards is in place. Operational standards, on the other hand, are the concern of the members of each system and will be determined so as to ensure that efficiency and integrity are maintained. The banking industry, therefore, has the ability to respond positively and rapidly to the requirements for standards which arise as the internal market evolves.

This paper demonstrates the continuing need for standards and that the mechanisms for identifying, developing and supporting all the categories of standards required, be they technical, application or operational, are in place excepting the banking sector ASB, for which approval will be sought from CEN in due course, and that the providers of these mechanisms should now be encouraged to position themselves to act to meet the evolving needs of the internal market.

Paris, 15 October 1991

**PAYMENT SYSTEMS TECHNICAL DEVELOPMENT GROUP**

---

**APPENDIX 4 : LEGAL ISSUES**

1. By definition, all cross-border payments between two Community countries involve at least two separate legal systems: that of the originator's country and that of the recipient's country. They may also involve the national law of one or more banking intermediaries in a country other than that of the originator or the recipient, especially if the currency used is that of neither party's country. It is even possible that a payment by one Community national to another could involve the law of a non-member country if the currency of payment were a non-Community currency, e.g. the US dollar<sup>1</sup>.
2. This will be the situation until legal rules governing payments have been harmonized. Despite the effort that has already been made within the Community<sup>2</sup>, harmonization cannot yet be said to have taken place. Moreover, these initial moves towards closer coordination have taken non-binding form (recommendations rather than directives or regulations). Practical achievements have been rather disappointing; for example, as regards payment cards, only France and Belgium appear to have taken any notice of the Recommendation of 17 November 1988 and apply it almost in its entirety.

---

1 In this case, under Regulation J of the Federal Reserve Board, payments through FEDWIRE, including relations between originators and recipients, are governed by US law, and in particular by Article 4A of the Uniform Commercial Code. This means that, strictly speaking, basic relations between, say, an Italian originator and a German recipient of a dollar transfer passing at some stage through FEDWIRE would be subject not to Italian or German law, or to a national law chosen by the parties, but to US law.

2 Commission communication to the Council of 12 January 1987 on payment cards;

Recommendation of 8 December 1987 on a code of conduct relating to electronic payment;

Recommendation of 17 November 1988 concerning payment systems;

Recommendation of 14 February 1990 on the transparency of banking conditions relating to cross-border financial transactions.

3. Cross-border means of payment do, of course, exist, in particular for small amounts (Eurocheques, cards affiliated to the Visa or Mastercard network, etc.), but they stem from private initiatives and are not specific to the Community. Moreover, they are based on contractual agreements whose legal validity is circumscribed by the rules, including public policy rules, in each of the countries concerned.

These means of payment do not cover all retail payments, in particular payments by correspondence or payments by small businesses.

4. At the statutory level, there is no harmonization of, or even compatibility between, cheques, transfers, electronic payments, operating rules for systems involving the exchange of means of payment, duties and responsibilities of banks, discharge of liability, or bankruptcy.

The most sophisticated attempts to harmonize laws on payment systems have been made outside the Community: work by the United Nations Commission on International Trade Law (UNCITRAL) on a draft model law on international credit transfers, application of the Lamfalussy report on netting systems, etc.

5. What is more, moves towards harmonizing the rules governing the taking-up and pursuit of the business of credit institutions, through the two banking coordination Directives<sup>3</sup>, do not cover the whole field with which we are concerned here. In Community law, the issuing and management of means of payment are included, pursuant to the second Directive, in the list of activities eligible for mutual recognition but, unlike the granting of credit and the taking of deposits, they are not activities that can be carried out solely by credit institutions. Under French law, on the other hand<sup>4</sup>, the issuing and management of means of payment are activities reserved for credit institutions<sup>5</sup>. The result of these differences is that a body managing a payment system (clearing house, central counterparty in a multilateral netting system, etc.) would need to be a credit institution if established in France but would not necessarily require such status under Community law.

6. The existence of different legal systems for payments is all the more likely to be seen as an obstacle since, for reasons of economic public order, banking and financial activities in general and payments in particular have traditionally been regulated activities. There would certainly exist fewer divergences between the various systems of law in the Community - and therefore less need for harmonization - if each country did not have a set of national laws governing systems of payment (national currency unit, means of payment, banking law, bankruptcy law, etc.).

---

3 Directives 77/780/EEC of 12 December 1977 and 89/646/EEC of 15 December 1989.

4 It would appear that a draft law with similar effect is under consideration in Italy also.

5 Article 1 of the French Banking Law of 24 January 1984.

7. The purpose of this paper is to reply to the question whether the existence of different legal systems within the Community is an obstacle to the establishment of a cross-border payment system and then, if necessary, to examine possible ways of surmounting that obstacle.

#### IS THE EXISTENCE OF DIFFERENT LEGAL SYSTEMS AN OBSTACLE?

8. For convenience sake, we will distinguish between legal problems concerning means of payment and those concerning systems of payment.

##### Means of payment

9. In general terms, some Community countries have legal provisions of their own regulating the use of different means of payment, while others do not. For example, the concept of legal tender is included in some legislations, making it possible to refuse payments made by means not ranking as such. In France, for example, payments made otherwise than by means of French banknotes (or coins for small amounts) may be refused. The legislations of other countries (e.g. United Kingdom) do not appear to include this concept of legal tender.

Conversely, other types of legal provision, often from the body of tax law, make it compulsory to use specific monetary instruments for particular payments. In France, for example, business payments and salary payments in excess of FF 10 000 (about ECU 1 400) must be made by crossed cheque or bank transfer, not in cash.

Such differences between national legislations may be an obstacle to the establishment of a European payments system to the extent that a valid payment in the debtor's country (i.e. a payment made using a suitable instrument) might conceivably turn out to be invalid in the creditor's country or, at least, liable to a tax penalty.

10. The law governing cheques is not the same everywhere. Not all the Member States of the Community have adopted the rules annexed to the Geneva Convention of 19 March 1931, in particular the United Kingdom and Ireland. Indeed, the Convention itself authorizes alternative approaches to certain points. Under English law, the ownership of a sum of money is not transferred by virtue of the issuing of a cheque, so that cheques may be stopped; under French law, on the other hand, the bearer of a cheque acquires ownership as soon as the cheque has been issued and payment may be stopped only if the cheque is lost or stolen, or if the bearer is bankrupt.

The rules as to when ownership of the amount entered on a cheque is transferred affect precautionary or enforceable distraint orders in respect of the funds in question.

Provisions relating to dishonoured cheques are also different from one country to another.

11. Rules governing transfers are not harmonized.

While some Community countries have brought in statutory provisions regulating the system of transfers, others have introduced virtually no specific provisions, relying instead on the general law of obligations covering, for example, money orders (France) or renewal by change of debtor (Spain). It is then up to the courts to apply these general rules.

Moreover, when specific rules do exist, they cover paper transfers but rarely or never electronic transfers.

This absence of harmonization entails different answers to questions such as whether a transfer order is irrevocable or when a transfer is complete (i.e. when liability is discharged). For example, under French case law, a transfer order cannot be revoked once the originator's account has been debited; payment is deemed to have been made (i.e. the debt is extinguished) once the recipient's account has been credited. Under one section of Belgian case law, transfer orders may be revoked until such time as the amount to be transferred has been entered as a credit on the recipient's account (this rule also applies in Italy and Germany), while, under another section, they may not be revoked once settlement has been made between the recipient's bank and the originator's bank.

For the rest, most countries allow the time when transfer orders become irrevocable to be changed by contract to an earlier or later date than that required by case law or statute. For example, under the operating rules for the SWIFT system, transfers notified via SWIFT cannot be revoked.

In view of the desirability of promoting the use of transfers, and in particular electronic transfers, as payment instruments within the Community, differences in national law may be an obstacle to the establishment of an efficient payment system. For example, it may be that an order to revoke a transfer order issued in a country where revocation is authorized after issue cannot be handled by a system where transfer orders cannot legally be revoked after issue.

12. The legal treatment of payment cards is still far from uniform despite the harmonization already accomplished (see point 2). For one thing, the 1987 and 1988 Recommendations have not been implemented in all the Community countries; for another, the Recommendations deal mainly with contractual aspects (card-holder and retailer accepting the card) and do not prevent divergences in the non-contractual aspects of payment cards: e.g. whether the payment discharges liability, whether such payments can be revoked, provisions regarding proof, etc.

For example, the legal systems of certain countries allow an account to be debited when the number of a payment card has been given over the telephone, without any secret code or handwritten signature being required; in other countries, payments made in this way would most probably be declared void if contested.

Similarly, the question whether a card-holder may stop a payment when he has given the order for it by signing an invoice (whether with a handwritten signature or with an electronic code) has not been answered in the same way in all the Community countries<sup>6</sup>.

This absence of harmonization may cause similar difficulties to those mentioned in relation to transfers.

13. As to the different types of debit order (direct debit, pre-authorized payment, deposit-transfer slips, etc.), the legal provisions governing them seem to be mainly characterized by a lack of organization. These instruments are based on national banking practice and no Community country appears to have introduced specific legislation.
14. When we come to consider means of payment that are still at the experimental stage, like prepaid cards, we naturally find that legislation is non-existent.
15. If the aim is to establish an efficient intra-Community payment system that is as fast and as cheap as possible, it is only worth removing obstacles hampering the instruments that can play a part in such a system. In view of the handling required for cheques (despite the introduction of non-material systems of exchange) and the cost of processing them, it is highly unlikely that cheques will feature in a future European payment system. The obstacles resulting from different legal arrangements for cheques can probably be disregarded.

However, the absence of harmonization of the law governing transfers (especially electronic transfers), payment cards and debit instruments is more problematic. Differences in the legal arrangements signify uncertainty about the following two points at least (which concern originators and recipients):

- (a) final discharge of liability for payment (does the payment extinguish the debt and, if so, at what point?);
- (b) possibility of revocation of the payment order (can it be revoked? If so, until when? If not, are there any exceptions?).

#### Payment systems

16. The main legal problem raised by the operation of a payment system is whether settlements between participants are final. This question was referred to in earlier notes (note from Mr Allen on the role of standards in the development of European payment systems; note from Mr Tresoldi on systemic risks and supervision).

---

<sup>6</sup> For example, in France, a law adopted in 1985 prohibits card-holders from stopping payments unless the card has been lost or stolen, or the recipient has gone bankrupt (as is the case for cheques).

17. The moment when payments via a payment system become final varies considerably from one legal system to another:

- (a) payments are final from the moment the operation has been recorded, both in systems based on gross settlements (in practice, the only examples of this type of system would seem to be outside the Community: FEDWIRE in the United States, and SIC in Switzerland) and in those based on the principle of clearing (this would seem to be the case with CHAPS in the United Kingdom);
- (b) payments are final when the managing organization declares that the clearing is definitive (e.g. CHIPS in the United States);
- (c) payments are final when balances remaining after clearing have been entered in the accounts of the participants on the books of the central bank (this would seem to be the most frequent case; examples are Sagittaire in France and the ECU clearing system).

18. It is not enough, however, to consider only the operational rules (whether statutory or contractual) of payment systems. It is also necessary to establish whether the rules on final payment apply in the worst-case scenario, i.e. when one of the parties goes bankrupt.

In several Member States, the usual rule prohibiting a bankrupt from paying any debts after proceedings have begun is supplemented by a rule making the effects of the decision to start proceedings retroactive as to 00.00 hours on the day it was taken. In practice, this means that, if a bank were suddenly to fail, a decision to start proceedings taken towards the end of the afternoon is liable to render all payments effected since 00.00 hours that day void or voidable. Such payments could, therefore, be challenged even if they are considered final under the operating rules of the system used. This rule certainly exists in Belgium, France, Italy and the Netherlands<sup>7</sup>.

19. The rule that bankruptcy takes effect as from midnight may affect the validity of:

- (a) payments made under a system based on gross settlements;
- (b) the settlement of netting balances for systems based on netting;
- (c) the actual clearing operation under legal systems which treat the operation as a payment.

However, under most, if not all, of the legal systems considered, payments made after 00.00 hours on the day of the opening of bankruptcy proceedings are not automatically void: the rule must be invoked by the official receiver and confirmed by the judge.

---

7 See paragraph 2-25 of the Lamfalussy report.



20. As for banks, this uncertainty about the moment at which payments become final should mean that due prudence will prevent banks not subject to the "midnight" rule from re-using immediately any sums credited to them from a payment system or an institution subject to the rule. Theoretically, they should wait until midnight so as to be sure that they will not be asked to pay back the money. They should also wait until midnight to be sure that the risks on their counterparts are equal to the net amount cleared and not to the gross amount exchanged.

These disadvantages, of course, loom less large for small amounts than for large ones.

21. The "midnight" rule may also have adverse effects on banks' customers. If banks consider that payments exchanged or cleared may be contested, prudence demands that the customer should logically be credited only when it is certain that the payment is final. For customers, the "midnight" rule does not expedite payments.
22. Apart from this difficulty, which stems from bankruptcy law, the operation of a future European payment system may also be disrupted by differences in liability laws.

Failure to execute a payment order or improper execution (delay, error, etc.) does not lead to comparable compensation under the law in the different member countries. Liability rules in some countries allow compensation only for direct damage suffered, while elsewhere they allow compensation for indirect damage, at least where it was foreseeable. Some countries recognize liability only for proven error, while others leave some room for objective liability, without fault, based simply on the risk involved in the use of sophisticated systems controlled by only one of the contracting parties. Under some laws, contractual clauses exempting or limiting liability are generally accepted, while other laws limit the validity of such clauses if their effect is to favour a professional operator against a non-professional or if they are included in general conditions not specifically approved by the customer.

The establishment of an efficient Community payment system that is as cheap as possible requires banks and their customers to know the extent and limits of their liability; clearly, wide-ranging liability will be welcomed by customers but may also make transactions more expensive.

23. The question of liability is also relevant to consumer protection (see work by consumer working party).

### POSSIBLE SOLUTIONS

24. The first matter to decide is the order of priority of the problems to be solved.

Harmonization should concentrate, first of all, on devising rules for:

- (a) the moment when originators can no longer revoke payment orders, in particular for transfers, payment cards or any other electronic means of payment;
- (b) discharge of liability for payments made by means of transfers, cards or debit instruments;
- (c) the time when interbank settlements within a payment system become final.

Of course, it is desirable for the other legal problems to be solved at some stage as well (although, if there is no need to promote the use of cheques internationally, the problems concerning them can safely be ignored), but this is not of paramount importance. The main thing is to establish legal structures ensuring the safety of payments rather than harmonizing the formal aspects of means of payment or relations between banks and customers, which are, in any case, largely governed by contract and thus subject to competition.

25. From this point of view, it is worth considering whether any work already done at international level on harmonization could usefully be exploited or whether the Community should adopt an approach of its own.

At international level, the only work that could be useful is that of UNCITRAL.

### UNCITRAL model law

26. UNCITRAL began work on its draft model law on international credit transfers in 1986; it entrusted the task to a working party which had as its original remit trade bills but which was renamed the working party on international payments. The draft prepared by this working party was submitted to UNCITRAL in June 1991; it is hoped that the draft can be adopted once discussions have been completed in May 1992. The draft UNCITRAL model law is not, at this stage, definitive.

Moreover, a model law, unlike an international convention, is not binding; it merely serves as a voluntary reference framework for businesses or the legislative bodies.

27. The draft model law is aimed at harmonizing laws governing all transfers (paper, telex, electronic, etc.) involving more than one country. Domestic transfers are not covered although, clearly, rules established for international transfers may also be used domestically. (It should be made clear from the outset that, within the European Community, the distinction between domestic and international transfers does not apply.)

It is explicitly stated that the model law does not deal with issues related to consumer protection.

28. After defining the terms used, the model law goes on to deal with:

- (a) obligations of the parties (obligations of the originator and other senders, obligations of receiving banks, obligations of the beneficiary's bank, acceptance);
- (b) time for receiving banks to execute payment orders (the same day or the following day);
- (c) revocation (not possible in principle, but with exceptions);
- (d) solutions to problems arising in the course of execution (money-back guarantee when transfer cannot be completed, liability limited to payment of interest, no other compensation available);
- (e) civil-law consequences of a credit transfer (discharge of underlying obligation on acceptance of the transfer by the beneficiary's bank);
- (f) conflict of laws (law chosen by the parties; otherwise, law of the receiving bank).

29. The model law was drawn up essentially with a view to facilitating the transfer of large amounts (high value) at high speed and low cost. It was strongly influenced by Article 4A of the US Uniform Commercial Code, which concerns the electronic transfer of funds. That Article is now in force in at least twelve states, including New York and California, and governs the CHIPS and FEDWIRE systems.

The fact that the model law was drafted to deal with the needs of transfers of large amounts can be seen from the following features:

- (a) the time allowed for carrying out instructions received is short (in principle, transfers must be executed on the same day; execution on the following day is allowed as a subsidiary possibility, introduced in order to avoid incompatibility with the Commission Recommendation of 14 February 1990);
- (b) liability in cases of failure to execute an order or erroneous execution is limited to the payment of interest; there is no compensation for exchange losses or other direct or indirect damage (originators transferring large amounts can hedge against exchange risks and take out insurance for other risks);
- (c) there are no provisions on consumer protection.

It is therefore not certain that the model law is suitable for the needs of small transfers, in which the Payment Systems Technical Development Group is interested.

30. It should also be noted that the UNCITRAL draft still includes points of disagreement and that some problems have not been solved.

The most controversial point of disagreement in the model law is the money-back guarantee, or obligation to refund to the originator the money sent to cover the transfer order. It is noteworthy that the country facing the most serious problems as a result of this rule is a Community country: Germany. The other Community countries accept it in principle. Moreover, the conflict-of-laws rule adopted does not seem compatible with the Rome Convention of 19 June 1980 on the Law applicable to Contractual Obligations, which is in force in the Community countries<sup>8</sup>.

The many unresolved problems are technical rather than matters of principle. For example, there are no rules for dealing with changes to a payment order; again, it is permissible for a receiving bank to execute an order on the day following the day of receipt, "on condition it executes for value as of the day of receipt": a provision that might mean everything or nothing.

Nevertheless, the UNCITRAL model law does exist, and the work that went into preparing it was not negligible.

Moreover, if UNCITRAL manages to amend the draft so that it can be adopted at its next session, the model law will become an international standard compatible, most probably, with US law (otherwise, the United States could be expected to block it), and likely to be adopted by countries that play an important role in international financial relations (Japan has set up a committee to consider the possibility of transposing the model law into national law).

In other words, if the Commission intends to start work on an instrument to harmonize transfers (electronic and other types), it would not be reasonable for it to set off in a direction different from that followed by UNCITRAL.

Of course, the UN draft would have to be supplemented (but not amended as regards the principles it lays down) by various provisions if it were to cover small transfers (consumer protection).

31. The model law, however, deals only partially and incidentally with a number of matters that may be regarded as priorities from the point of view of the PSTDG (see point 23).

It does indeed lay down the principle that orders once given cannot be revoked (Article 11(1)), the rule that bankruptcy of the sender or originator does not of itself operate to revoke a payment order (Article 11(8)), and the idea that a transfer - or, more precisely, the acceptance of a transfer by the beneficiary's bank - is one way of discharging obligations (Article 17(2)). But these provisions

---

<sup>8</sup> When the parties to a contract do not specify which law applies, the Rome Convention provides that the contract is governed by the law of the country with which it is most closely connected, whereas the UNCITRAL model law provides that it is governed by the law of the country of the receiving bank.

only to transfers (the object of the model law); they are not general rules applicable to all means of payment. What is more, they are drafted in terms that are probably too vague to be effective against contrary national provisions of public policy such as currency law or bankruptcy law.

The UNCITRAL model law is not, therefore, the solution to the problems of structure that need to be solved if an efficient Community payment system is to be established.

#### Other possible solutions

32. In view of the obstacles to harmonization mentioned above (see point 23), the Community could concentrate its effort on introducing rules to govern the following points:

- (a) a rule whereby, notwithstanding certain bankruptcy laws, payments made by a credit institution via an interbank payment system<sup>9</sup> may not be called into question if they have been carried out in compliance with the rules of the system (except, of course, in cases of fraud by virtue of the principle that *fraus omnia corrumpit*);
- (b) a rule to dissuade originators from going back on their instructions (irrevocability);
- (c) a rule whereby payments carried out within the Community are in full discharge of liability, i.e. they extinguish debt under civil law.

The first two rules are mainly intended to protect recipients of payments; the third protects the originator of a payment order.

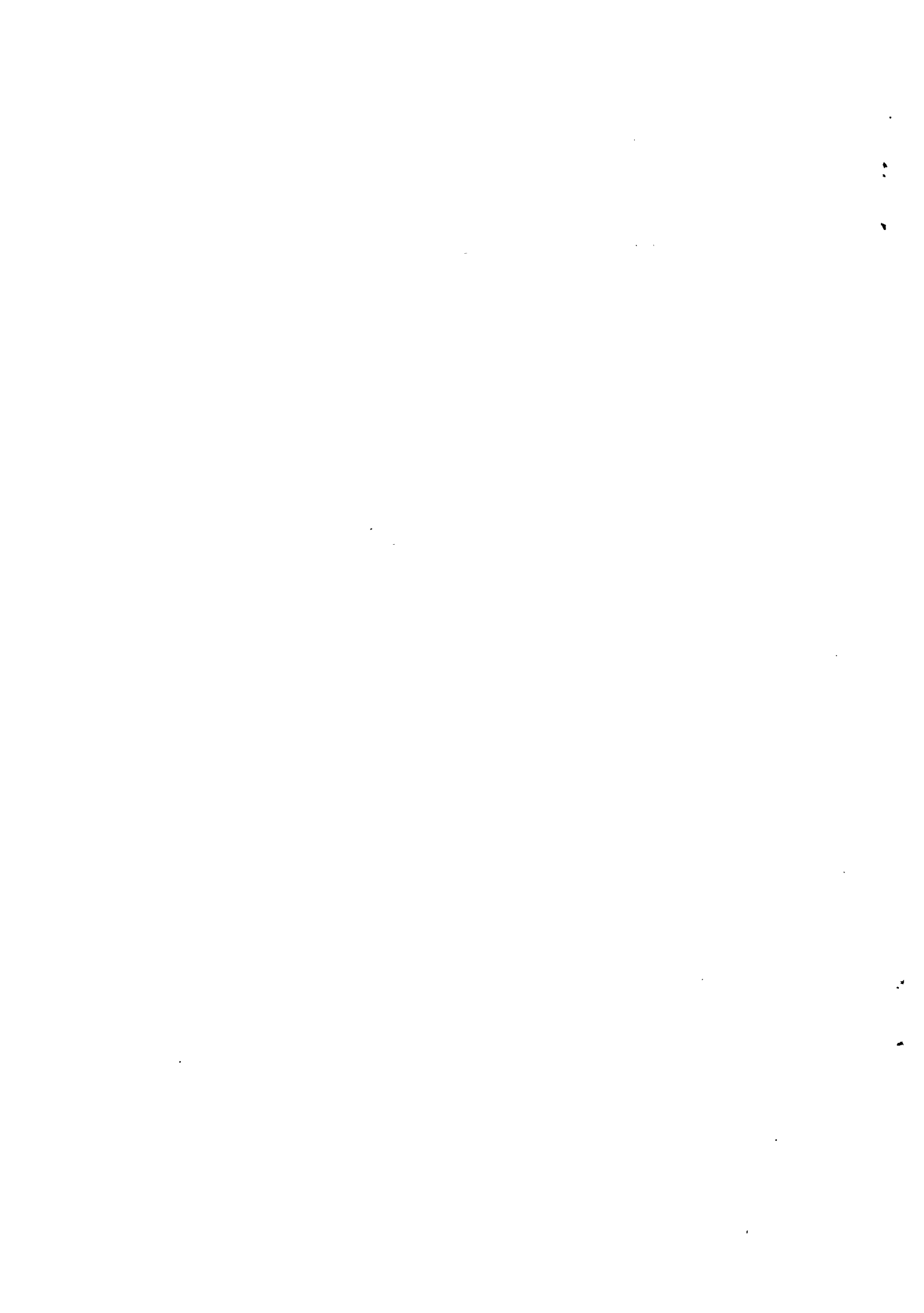
The derogation from bankruptcy law in certain countries cannot be dealt with in isolation from the work already under way, but apparently proving problematic, with a view to more general harmonization of bankruptcy law in the Community.

The harmonization of rules on discharge of liability should be dealt with in the context of introducing a single currency.

It should also be noted that the three suggested rules seem to be necessary not only for the smooth functioning of a payment system for small amounts, but also for that of a system handling large amounts.

---

9 A system which may, if necessary, be extended to include non-banks within the meaning of the European directives where their normal activities include the execution of payments on behalf of their customers (post offices, central banks, etc.).



## APPENDIX 5 : PRINCIPLES ON COMPETITION FOR CREDIT TRANSFER SYSTEMS

The present document concerns situations in which banks and other financial institutions are setting up a system allowing for clearing, netting and/or settlement of cross-border transfer payments between them or linking existing transfer networks with each other. Thus, the document will not directly concern questions regarding cooperation in the area of payment cards or cheques. Institutions setting up or linking transfer systems will wish to do so on the basis of agreements which

- determine the membership in such systems, i.e. in admitting to the cooperation only such institutions which fulfil certain pre-established criteria, regarding especially their financial standing, their orderly management and their technical capacities;
- rely on firmly established principles for technical, legal and operational aspects of the services rendered to the institutions' customers; indeed payment processes inside the system will have to follow pre-established rules and procedures; these can concern, for instance, message formats, security procedures, time spans at which the systems are operational or routing instructions (technical, application and operational standards);
- cover the sharing of the costs of the system between its participants.

The Commission considers that the application of the EEC Treaty competition rules to such agreements should be guided by the principles set out below. This does not imply, however, that the competition rules will be applicable to all such agreements; indeed, agreements without which the provision of payment services is not conceivable might well not fall under the prohibition of Article 85(1) at all.

### 1. Membership in a system

The question of "membership in payment systems" is a wider one, not limited to competition policy. In particular, legal aspects pertaining to the principles of freedom of establishment and services enshrined in the EEC Treaty as well as to the impact of the Second Banking Directive 89/647/EEC in this area will often arise with regard to payment systems. These legal questions will concern systems membership in which is controlled or monitored by public authorities. These aspects of public regulation will be studied separately and are not dealt with in the present paper. The following considerations pertain to the aspects arising with private arrangements among institutions setting up new or linking existing systems.

#### a) Non exclusivity

As a general rule, cooperation agreements which embrace the majority of credit institutions of one country or are likely to process a significant part of payment traffic between different countries either totally or in a given market segment (e.g. automated clearing of retail payments; foreign exchange netting) may be considered to provide an "essential facility" and, therefore, should be open for further membership provided that candidates meet appropriate criteria (cf. (b) below).

Where a limited number of institutions set up a payment system, they may be entitled to choose their partners according to their general business strategy and cannot always be forced to open their particular agreement to further partners, even of equivalent standing. However, such agreements must not contain clauses which have the effect of preventing individual participants from taking part in other systems.

b) Criteria

The general requirement of non-exclusivity, described in (a), first sub-paragraph above, is not intended to prevent the application of membership criteria for such schemes which are objectively justified. These can concern, for instance, the financial standing, the orderly management and the technical capacities of participants.

As regards criteria based on volume, it will be legitimate to require that the expected traffic generated by a candidate member should not be negligible. But payment systems should wherever possible permit participation by institutions of varying sizes.

Thus, instead of basing an membership criterion simply on expected volume, it may often be preferable to make the candidates own decision depend on economic considerations (e.g. a high flat rate contribution representing the participation in previous investments by other participants; however, the share of the entrant must not exceed a fair share of the actual cost of past investments).

Where foreign banks apply for membership in a domestic transfer system, their expected volume may be low in the beginning; in such cases the type of business, the experience and the volume of payment transactions in the country of origin of such banks should be taken into account.

Refusal of membership or exclusion should be subject to an independent review procedure.

2. Operation of systems

a) Operational standards

Details about technical, application and operational standards are set out in the Payment Systems Technical Development Group's paper on standards (source document to the Report). Of particular interest in the present context are "operational standards". Such operational standards, for example, include standardised message formats (agreements on eligible hardware should however be avoided), as well as rules on transaction times stipulating, for instance, that value will be received by the beneficiary bank of a credit transfer during the same day if a payment order is received before a given hour of that day, while later orders will be executed on the following business day. However, such arrangements must be limited to interbank relations and must, in particular, not lead to concerted value dating practices vis-à-vis the customers.

The participants can also, where justified, set standards regarding the kind and quality of transactions to be processed by a system, for instance defining minimum or maximum amounts involved or requiring that value must be received before a payment is being made. However, such transaction standards must not lead to any exclusivity arrangement; users must remain free to change banking connections from one partner to the other or to bank with several partners simultaneously.



b) Risk management

Arrangements may also concern minimum security standards and risk management. They will often wish to take into account the principles contained in the "Report of the Committee on Interbank Netting Schemes of the Central Banks of the G-10" (Lamfalussy Report, November 1990, in particular its section III.C), it being understood that these principles may have to be adapted to the particular needs of retail payment systems.

Thus, for instance, participants may be required to "prepay" for the risk of their own default by posting collateral sufficient to cover the exposures which their obligations create for the counterparties. Where systems rely on risk management procedures which consist in limiting their mutual exposures, lower limits can be set for smaller counterparties or for participants of a relatively lesser credit standing. A prearranged sharing of losses from defaults of partners will be possible.

3. Costs and prices

a) Pricing vis-à-vis customers

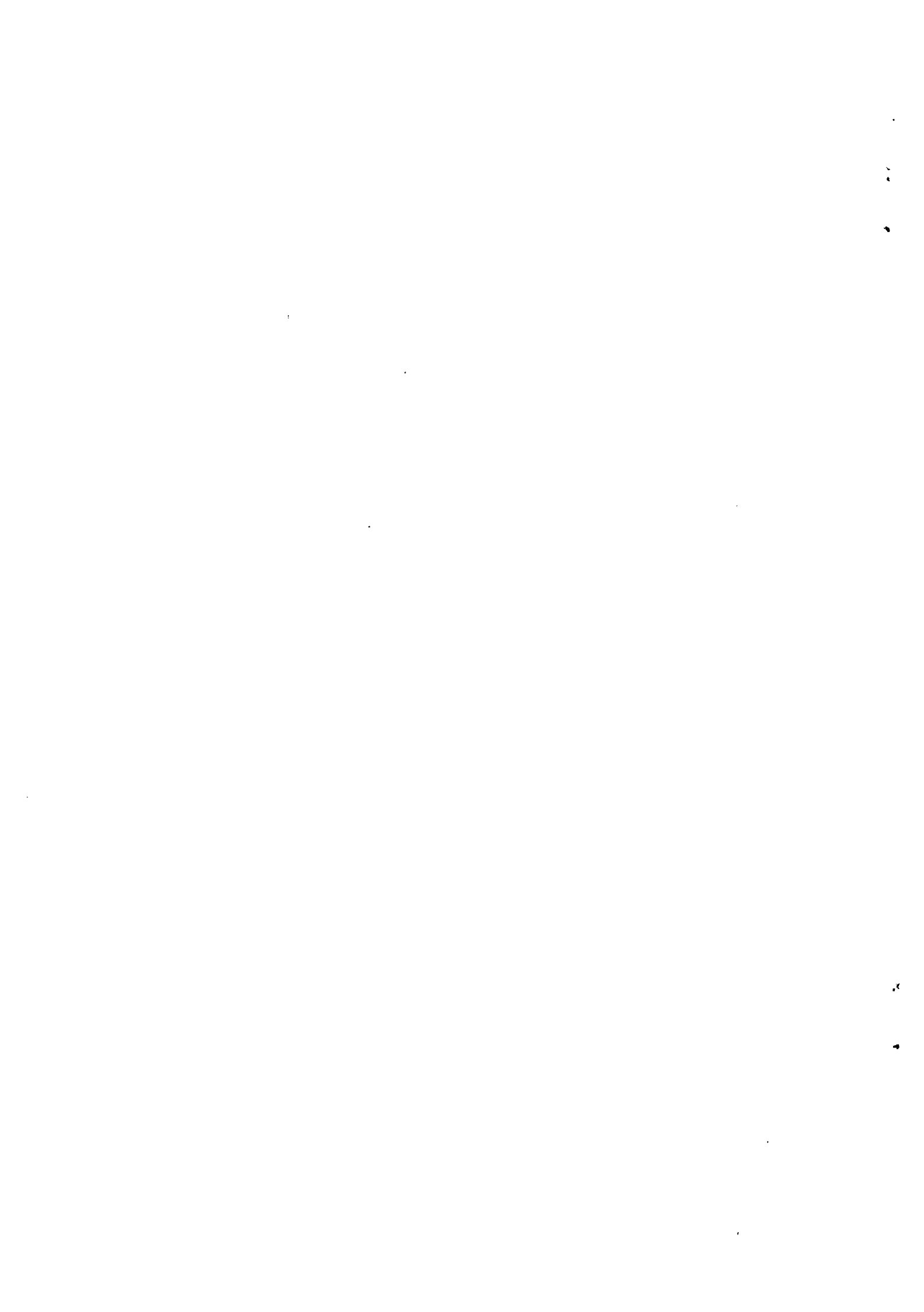
Here, as in other areas of banking competition, no agreements between participating banks on prices of transactions with their customers can be accepted. The systems should be devised in such a way that binding commitments affecting the interbank relations must leave the partners free to determine the offers which they can make and conditions which they will apply to their customers.

b) Cost of systems and central bodies

The cost incurred by the setting up of a system and those arising out of the operation of a central body (e.g. an ACH), can be shared among systems participants at fixed rates (general charge of a central body, e.g. an ACH tariff valid for all participants or, as the case may be, varying according to volumes or other pre-established conditions).

c) Interchange fees in multilateral systems

Interbank transaction fees other than those charged by a central body can also be the subject of general arrangements between all participants. However, these general arrangements must leave open the possibility for individual participants to agree on lower interchange fees bilaterally. In other words, a generally agreed fee structure can provide for maximum fees only. It must remain possible to negotiate variations from this maximum, either effected directly through bilateral rebates between participants or through a central mechanism, as appropriate. Members of a system with maximum interchange fees are not obliged to offer prices below the maximum. However, the Commission would have to consider individual cases upon their merits, to determine whether the absence of prices below the maximum was the result of anti-competitive behaviour.



## APPENDIX 6 : Reporting Requirements and cross-border payments

**Belgium:** Existing threshold of 100,000 BF (2,400 ECU approx.)  
There is a proposal to raise the figure to 1,000,000 BF.

**Denmark:** Existing threshold of 8,000 ECU.

<u>France:</u>	<u>Threshold</u>	<u>Procedure resident/non-resident</u>
	<100,000 FF	customer: declaration if transaction is over 50,000 <u>and</u> not carried out through a bank bank: cumulative declaration (+ record if transaction is over 50,000)
	>100,000 FF	customer: must give data bank: additional declaration

(100,000 FF = 14,350 ECU approx.)

**Germany:** The existing threshold is 5,000 DM (2,500 ECU approx.)

**Greece:** No threshold exists and every single transaction is reported (studies are underway to modify the system- probably by June 92)

**Ireland:** Banks will ask for the purpose of any transfer above 250 Irish Pounds to non-resident accounts:

- no reporting threshold exists for imports and exports of goods;
- 10,000 Irish Pounds is the threshold applying for payments in connection with the provision of services across borders;
- 20,000 Irish Pounds is the threshold applying for gifts.

**Italy:** from May 1990, abolition of the currency control system. New threshold of 13,000 ECU was introduced (all transactions below it are cumulatively reported). This results in an "information loss", of about 10% of trade transactions, and concerns in particular BoP data for tourism.

**Luxembourg:** same as Belgium

**Netherlands:** The existing threshold is 25,000 Guilders (+12.000 ECU)

**Portugal:** No threshold on individual transactions exists for BoP compilation purposes (other statistical forms for data collection exist to this aim).

However, in order to prevent "irregular" capital movements, notification is still required for some transactions (for most of these, notification is regardless of the amount concerned).

**Spain:** The current threshold is of 1,000 ECU. (with a reform coming into force as from 01.02.92, the current threshold might be raised).

**UK:** No reporting requirement exists.





COMMISSION  
OF THE EUROPEAN  
COMMUNITIES

14 February 1992  
Final

DIRECTORATE-GENERAL  
FINANCIAL INSTITUTIONS AND  
COMPANY LAW

Application of Community Law  
XV/1

REPORT OF THE  
PAYMENT SYSTEMS USERS LIAISON GROUP  
TO SIR LEON BRITTAN, VICE PRESIDENT OF THE COMMISSION

-----

## CONTENTS

### 1. REPORT

<u>Subject</u>	<u>Paragraph</u>
<b>A. INTRODUCTION</b>	
The composition, terms of reference and objectives of the Group.....	1 - 3
Principal categories of cross-border payments and requirements.....	4 - 9
<b>B. ISSUES EXAMINED BY THE GROUP</b>	
Differing needs of different issuers.....	10 - 12
General description of problems which users face.....	13 - 18
Views of the Group on particular instruments.....	19 - 21
Competition policy.....	22 - 25
<b>C. TRANSPARENCY AND INFORMATION FOR USERS.....</b>	
26 - 32	
<b>D. COMPLAINTS AND REDRESS.....</b>	
33 - 41	
<b>E. SPECIFIC RECOMMENDATIONS OF THE GROUP</b>	
User needs.....	42
Competition.....	43
Information on cross-border payment instruments and systems.....	44
Information on exchange rates.....	45
Redress procedures.....	46
Follow-up.....	47

### 2. APPENDIX

#### Subject

Guidelines on remote payments

## REPORT OF THE PAYMENT SYSTEMS USERS LIAISON GROUP

### A. INTRODUCTION

#### The composition, terms of reference and objectives of the Group

1. The Group was composed of 5 members drawn from the banking sector (2 of whom were also members of the Payment Systems Technical Development Group ("PSTDG") and 8 representatives of users of payment systems (of whom 4 were drawn from consumer organisations, 2 from the retail distribution sector and 2 from the SME sector). The Group met on 5 occasions between April 1991 and January 1992. Group members participated throughout in a personal capacity. As a result this report, which conveys the findings of the Group to the Commission, does not necessarily reflect the positions of members' organizations on the issues raised. Except where otherwise indicated the report outlines the consensus, and not necessarily the unanimous view of the Group on the topics covered.
2. The terms of reference of the Group were to advise on :  
  
"Questions relating to the integration of payment systems of a market oriented kind, in particular on transparency of available services and their prices, on user needs, on competition matters and on similar aspects."
3. The Group worked on the following areas :
  - an investigation of the needs of different categories of users;
  - aspects of competition in the provision of cross-border payment systems (CBPS);
  - the improvement of transparency and information to users;
  - the means of redress for users in the case of complaints.

#### Principal categories of cross-border payments and requirements

4. Cross-border payments may be made **face to face** i.e. where the user, who is a resident in one Member State, is physically present at the place of payment in another Member State. In such cases the requirement is invariably for a means of guaranteed payment i.e. cash, guaranteed cheque or payment card. The guarantee is provided because (a) there is unlikely to be a continuing relationship between the parties and (b) the transaction (e.g. a purchase) is completed immediately, at the time when the payment is tendered.
5. The other principal category of CBP is the **remote payment** i.e. where only the payment crosses the frontier. The payment instruments (cash or cheque or other instrument - e.g. a credit card authorisation) may be posted by the user to the beneficiary of the payment; alternatively the user may instruct his bank or other financial institution offering a cross-border payment service to send the payment on his behalf to the beneficiary's bank (or other institution). Such a payment, known as the **credit transfer**, is the main category of interbank payments. Others which are not as yet generally available for cross-border use include the **debit transfer**, where the payment is initiated by the beneficiary; the principle example of this is the direct debit. Remote payments, as a rule, unlike most face to face payments, do not require to be supported

by a guarantee of payment. The beneficiary can generally wait until he knows that he has received value for the relevant payment instrument before performing his side of the contract.

6. A further important categorisation of payments is between large value and small value payments. The Commission had made it clear that the main focus of its initiative and thus of the Group, should be on the smaller payments, known as retail payments. The Group took note of, but did not discuss, the question of the cut-off level between retail and wholesale payments.
7. Finally, a distinction between payments can be drawn according to whether they are regular or irregular. The Group noted that different considerations would apply in each case.
8. The Group recalled the objective stated in the Green Paper of "ensuring that Europe is equipped with structures which provide payment services which are as cheap, as rapid and as reliable between different Member States of the Community as they already are within them". The Group agreed that this realisation was the ultimate objective. However, it was recognised that the objective could not be fully achieved until there was a single currency and a further convergence of underlying costs and that its realisation would not mean that all payment systems would perform to the same standard (i.e. different payment systems will continue to have different characteristics). The fact that the objective would not be fully realised until the above mentioned conditions were present did not diminish the need to make rapid progress wherever possible.
9. In reviewing the various payment instruments and payment systems the Group adopted the notion of "cross-frontier acceptability" as a general criterion by which to assess them. A means of payment or payment system which could be readily used for making payments outside the user's Member State without exorbitant costs over and above its domestic use and was widely accepted for payment throughout the EC might be described as having a reasonable level of cross-frontier acceptability, for the user. Banks whilst judging payment instruments along similar lines would add further desiderata such as the relative cost of handling and the degree of security. Thus the notion of "cross-frontier acceptability" of payment instruments and systems is wider than that of "interoperability" as applied to payment cards and complements the objective discussed in paragraph 8 above.

## **B. ISSUES EXAMINED BY THE GROUP**

### **Differing needs of different users**

10. It was felt that the analysis of user needs would be assisted by drawing a distinction, where appropriate, between different categories of user. This is not a new departure, as the Green Paper (cf para. 7) refers to three categories of user (individuals, companies and the public sector). The Group decided to study the needs of individuals (consumers), small and medium sized enterprises (SME) and users in the retail trade and distribution sector. Nevertheless, in doing so, the Group noted that many of the problems were the same. In this Report, most of the issues were of common concern to all users; points of relevance to a particular category of users are either noted as such where they arise, or dealt with separately at the beginning of this section.



### Characteristics of SME's

11. A large majority of businesses in the EC are small, by any definition. In many SMEs the owner performs many of the functions which, in larger business would be carried out by specialised personnel; the owner is therefore faced by time pressures and needs so far as possible simple, straightforward methods of payment for his cross-border transactions. These considerations were taken into account in the Group's discussions and are reflected in its conclusions.

### Payments by traders : particular considerations

12. Traders find that making a CBP is often more difficult than a domestic one (even if one ignores the currency conversion). For a larger trader, with a sufficient volume of business in another Member State, one solution is to open a local bank account. In general, traders favour the use of electronic means of payment on the ground that there is less handling involved, so it is less costly for them, and is more rapid and reliable.

### General description of problems which users face

13. The problems which users encounter were considered under the following headings :
  - a) The level of charges for making cross-border payments, particularly of small amounts.
  - b) The double charging which sometimes occurs where the originator asks to bear all the fees yet the beneficiary is charged, additionally.
  - c) The time payments take (e.g. the length of time taken to clear CB cheques and thus to transfer value to the beneficiary or to complete a credit transfer by placing value in the beneficiary's bank account) and the uncertainty as to the time involved.
  - d) Lack of information, before making the transaction, on the various means of payment available and the respective charges for using them, the timescales involved and any other relevant conditions; lack of information after the transaction.
  - e) The need for an accessible, effective and rapid procedure for resolving fairly complaints by users about cross-border payment services.

### The level of charges in general

14. The Group agreed that as an ultimate goal the level of charges for making CBP should not be greater than those for making comparable national payments. The achievement of a single currency is a necessary but not a sufficient condition for the achievement of this goal (see paragraph 8 above). In the meantime, the proximate goal should be to reduce the disparity to the greatest extent possible. This required the elimination of obstacles to and the encouragement of links between the various payment systems, work which was being carried on within the PSTDG. The Group explored various

possible approaches to the question how charges might best be evaluated before concluding that the only satisfactory test was that they should be competitively determined (see paragraphs 22 and 26).

#### Double charging

15. It was agreed that double charging for CBP - where an originator expressly pays his bank not only its own charges, but those of its correspondent only to find that the correspondent bank levies a further charge on his beneficiary - is in breach of contract and therefore wholly unjustified and illegal and should be eliminated immediately. The Group did not consider the technical improvements which would be required to eliminate it and to enable an originator to send a precise sum net of charges to a beneficiary (cf work of the PSTDG). The Group recommended that the work needed to bring this about should be pursued in the follow-up to this Report.

#### The time taken to complete CBP

16. Consumer members of the Group recommended that a maximum number of days should be fixed, representing the extra time by comparison with domestic transactions, required for the clearance of cross-border cheques and other paper instruments; this number ("x days") should be reduced to zero over a target period. The proposal was not discussed in detail by the Group; it did however fall within the Group's overall ultimate objective for CBP, of eliminating the differences between them and national payments. However, it was noted that since there are no standard time limits applicable at national level, the idea would be difficult to implement. The hope was expressed that improvements under way should help to reduce the length of time and to eliminate any exceptional delays. The Group also note that correspondent banks had been called upon to execute payment orders within 2 days of their receipt under the Commission's Recommendation of 1990. The question of information to customers on timescales is covered in paragraph 28 of the Report.

#### Information a priori and ex posteriori

17. The Group agreed that a major priority was to improve the quality of the information which banks provide to their customers, enabling them to make their own informed choice of payment method; this would also permit a comparison of the range of payment services offered by different banks. It was decided that the improvement of customer information should be a major part of the Group's work programme and this is dealt with in paragraphs 26 and following of the Report.

#### Complaints and redress

18. Consumers, supported by the other user representatives in the Group, advocated a system within each Member State for handling complaints and providing redress in relation to CBP. Bank representatives were agreed on the benefits of such procedures, although they suggested -and it was agreed- that they did not need to be separate from the procedures for handling complaints about banking business in general. The subject was selected as one which the Group would investigate in depth and is covered in paragraphs 33 and following.

## Views of the Group on particular payment instruments

### Cheques

19. The Group considered whether a new paper cheque instrument, incorporating a guarantee, would help to meet the needs of SME's. Bankers in the Group were convinced that such a scheme would not contribute to the efficiency of CBP. It was also noted that it would be covering much the same ground as, and thus duplicating, the existing Eurocheque scheme, which would be undesirable. The Group took note of the fact that improvements were being planned in the Eurocheque scheme in the context of negotiations with the Commission, including a substantial increase in the clearing ceiling; consumer members of the Group indicated a strong interest in the outcome of these proceedings. Finally, banks throughout the EC were working towards reductions in the use of paper instruments in favour of electronic payments which were faster and less costly. The retail and distribution sector representative agreed with the banks that electronic payments offered the best prospects for improved CBP. The SME representative was ready to accept these points provided that banks would inform their customers clearly as to how the electronic payment methods could be used by SME's.

### Payment cards

20. Payment cards were a highly convenient means of CB payment, both for the customer and for the trader (as recipient). Moreover, the payment card, although predominantly a consumer instrument could be, and was, to a growing extent, being used by business users. Indeed, the payment card was described by one member as "the single currency" for CBP. Nevertheless, it was agreed that the techniques for remote payment by payment card (e.g. by giving the number over the telephone) were not [yet] sufficiently secure to be widely used. Traders were however concerned about two aspects, both of which inhibited the interoperability of payment cards throughout the EC :

- a) Whilst there were already some arrangements for debit cards (an increasingly important payment card type in some countries) to be accepted on a cross-frontier basis in payment for goods and services, these are not yet widespread. The Group noted, however, that considerable progress had been made in extending the interoperability of debit cards (as well as credit cards) for use in cross-border ATMs.
- b) The interchange fees set by the international card schemes for CB payments were, in the view of traders, anti-competitive, as they prevented market forces from operating across national boundaries in the Community. Banking members of the Group disagreed that these fees were anti-competitive or that they inhibited the achievement of interoperability. They also considered that agreements concerning interchange fees were essential to the functioning of cross-border card payments and the achievement of an effective interoperability.

### Debit cards

21. The Group concluded that there were few technical or infrastructural problems preventing the linkage of national debit card networks. Debit card networks needed to see a business case for linkages and a way to overcome any potential competition policy problems.

### Competition policy

22. The Group took note of the Commission's paper on "Principles of Competition Policy" (set out in Appendix 5 to the PSTDG's report), which had been drafted in order to provide a clear statement of the criteria which the Commission, as the competition authority, would apply to the agreements on co-operation which were required for cross-border payment systems. It was agreed that interbank agreements would have only an indirect effect on users but users were not prepared to accept this lack of direct connection as a reason for excluding them from information about, and the right to comment on, general agreements between banks. Users raised a further general point which was to emphasize the importance of establishing guidelines to cover the arrangements for "face to face" payments, as well as those for remote payments which are at present the subject of the principles. Subject to these general remarks and to the particular comments below, the users were satisfied with the "principles".

### Membership and access to systems

23. As regards the principle of non-exclusivity, which states that where a co-operation agreement is made up of the majority of banks or covers a significant part of the payments traffic between different countries it may be considered an "essential facility", the question was raised by user members whether it would be desirable to attempt to define the boundary between an "essential" facility of this kind, which in principle should be open to new members, and the type of system comprising a limited number of members, which could freely choose whether or not to admit new members. User members accepted the Commission's view that it would not be possible to determine these different situations other than on a case by case basis. Further reflection would however be necessary on the question of participation by non-banks, on which the principles were incomplete.

### Interchange fees

24. Users emphasized the importance to them of there being competition on interchange fees, defined as the fee paid by the paying bank to the payee bank or vice versa. They thought that paragraph 3(c) of the "principles" did not identify the issue clearly enough, which, for them, was the risk of conflict between centrally determined interchange fees agreed by and applicable to all members with competition principles. Users also felt that a close watch by competition authorities should be kept on agreements providing for "maximum" fees as the fee levels tended to remain at the maximum level. Banking members did not agree with the views of users on these aspects, as, in their view, what was important for the user was competition in the overall charges made to him, which could exist despite agreed interchange fees.

### Conclusion on competition

25. The Group noted that the Commission envisaged adopting the principles on competition set out in Appendix 5 of the PSTDG's report and drawing them to the attention of all interested parties. The user members of the Group asked the Commission to lend its weight to the implementation of the principles relevant to competition already contained in its 1987 Recommendation incorporating a European Code of Conduct relating to electronic payment. The banking members considered the PSTDG, rather than this group, to be the appropriate forum to deal with competition matters, as these were addressed extensively in the course of the latter's work and therefore reserved its position.

### C. TRANSPARENCY AND INFORMATION FOR USERS

#### Background

26. The need for users of cross-border payment services to be better informed had been pointed out by both bankers and users in their reactions to the Discussion Paper. Bankers had remarked that users often chose an inappropriate means of payment for a cross-border transaction and were consequently disappointed by the result; users agreed and said that better information was needed for both originators and beneficiaries. The Group noted the principles on transparency contained in the Commission's 1990 Recommendation - applicable to transfers - and the Commission's 1988 Recommendation on payment cards which also called for clear a priori information to be contained in contracts. The Group decided that it would be desirable to take the subject further than these two instruments had done, in order to provide relevant comparable written information covering the various forms of cross-border payment mechanisms, in a comprehensive fashion. This would enable customers to make comparisons between different means of payment and the charges for them; it would also enable them to compare the services offered by different banks and thus stimulate competition. The Group welcomed a commitment given by the European Credit Sector Associations (ECSAs), to prepare and send out guidelines to their members in all Member States, setting out the minimum information which should be given to their customers on different means of effecting cross-border remote payments. A draft of these guidelines is set out in the Appendix.

Payment instruments and mechanisms to be included in the scope of the information - remote payments and face to face payments

27. Users were in favour of including all cross-border instruments and mechanisms within the scope of the information which banks would provide, not least because there were situations in which users are faced with deciding whether to use a remote or face to face payment method. In this way they would be able to decide whether a payment by card would be more advantageous than using a cheque, for example. Banking members of the Group suggested that remote payments would be more appropriately treated separately from face to face payments. This different treatment was justified first by the fact that although the same instrument (e.g. a payment card) might be used for both types of payment, the type of information to be given in each case might be different and it was therefore potentially confusing for the reader to attempt to deal with both in one document. A second difference between remote and face to face payments was that the former would generally be originated on the premises of the customer's bank, whilst the latter would take place outside the bank, indeed outside the home country. A third reason for treating these categories separately was that not all means of face to face payments would be made available by banks to all customers and it would be embarrassing for banks and annoying for customers if a payment card, for example, included in the brochure were to be refused on credit grounds. Fourth, and finally, banking members pointed out that transparency of information with respect to the cost of making face to face payment was harder to achieve than for remote payments because the bank has virtually no control over the beneficiary of the payment, at the point of sale, who might for example impose an unforeseeable charge on the customer.

27A Users and the Commission took note of the banks' views but thought that both types should be within the scope of the initiative to improve customer information, although recognising that the appropriate way of dealing with face to face payments might not be the same as that for remote payments. The Group as a whole was able to agree that it was desirable and indeed important that customers should be informed as clearly as possible as to the various different means of making face to face payments both at home and abroad and whether by cheque, Eurocheque, payment card or other means. The Group took note of the willingness of the ECSAs, to consider recommending to their members to review the information given by them on face to face payments in the light of the guidelines for remote payments. The Commission and user members considered that it would be desirable for the same information (mutatis mutandis) to be given for face to face means of payment as for remote means, although banks should quite properly be free to decide where and how to present and distribute this information. The Commission stated its intention to keep in touch with the ECSAs with a view to making further progress towards this objective.

Scope of the information to be provided to users

28. The Group agreed that the following areas should be covered :

- a basic description of the service;
- the way in which the service can be used, possibly including details to be provided by the customer in order for the funds to reach the beneficiary or to satisfy any technical, regulatory or other requirements;
- description of how to send a precise sum to a beneficiary (by paying all charges for the transfer);
- an indication of the "target" time generally accepted by the bank for the funds to be credited to the account of the beneficiary, or to be available to him, under normal circumstances;
- the basis of any commissions and charges payable by the customer to the bank, including foreign exchange commission if any, including, wherever possible, the charges of the beneficiary's bank;
- the basis of the exchange rate applied to the transaction;
- the value date applied by the bank to the debiting of the customer's account;
- ways in which the customer may obtain further information, including tariffs and exchange rates in effect. This might consist for example of notices in branches, or an indication of how the relevant person or office could be contacted;
- where relevant, specific warnings with regard to certain methods;
- the main characteristics of each means of payment, including reference to redress procedures.

In relation to the 5th indent above, the Group noted that in current circumstances information about additional charges imposed by the beneficiary's bank was not always available to the originator's bank. User members and the Commission considered that this was an unsatisfactory state of affairs and invited the banking associations and individual banks to examine how the situation could be improved as soon as possible.

With regard to the 6th indent above, the user members considered it would be beneficial to provide, in addition to the information described there, information on the amount of the margin (if any) applied by the bank over the reference exchange rate and invited the banking members to give further consideration to this issue.

#### Format of the information for users

29. Consumer members of the Group advocated a standardised Europe wide format (as in France) which would enable users easily to compare information provided by different financial institutions. Such an approach was not accepted by the banking members of the Group in view of national differences. It was agreed nevertheless by the banking members that the principle of ease of comparison of information would be reflected in the guidelines. The objective would be that banks in each Member State would be expected to produce guidelines for their customers along the lines recommended. The Group discussed how best to deal with changes in prices or other conditions and agreed that users should receive up to date written information on tariffs and charges. This could be in the guidance document or in separate leaflets describing the various means of cross-border remote payment. Where changes in tariffs or charges occurred these might need to be made available in a separate leaflet.

#### Group's conclusion on a priori user information

30. When the draft CBP guidelines have been finalised by the European Credit Sector Associations, which is expected by March 1992<sup>(\*)</sup> they would be transmitted to the Associations' members for implementation and, at the same time, the existence of the guidelines should be widely publicized by all interested parties. In a second stage individual banks would implement the guidelines by preparing (or revising) their own customer literature. The ECSAs indicated that they would make every effort to achieve the implementation of the guidelines by 31 December 1992. The Commission would continue to monitor this. Consumer and other user groups who make CBP should be encouraged to ask their bank for a copy of its guide. The implementation of this initiative, coinciding with the inauguration of the internal market in 1993, will represent a significant step towards improving the transparency and efficiency of cross-border payment systems.

#### Transparency of currency exchange transactions

31. A special case, not falling within the scope of the a priori written information to be provided to users, concerns the way in which the price of exchanging currencies is quoted and whether a norm should be recommended (or enacted) in this area. The situation arises where a bank or bureau de change takes as its price not only a margin on the spread between its buy and sell rates for a currency, but also a separate fee (which is not always apparent until after the transaction is completed). The consumer members advocated that this fee should be incorporated in the rate of exchange, to produce an all-inclusive exchange rate. This would enable comparisons to be readily made between the terms of business offered by different establishments which was not the case if a consumer tried to compare inclusive exchange rates with exchange rates supplemented by fees. However, other members of the Group thought that such a rule could work to the detriment of consumers in that banks and bureaux de change would be likely to widen their spread on the exchange rate in order to compensate for the separate fees which they would no longer be entitled to charge. The Group agreed that the following principles should apply to the quotation of rates for currency exchange transactions by banks and bureaux de change :

---

(\*) I.e. in time to be included in the Commission's Communication planned for 25 March.

- clear, concise information about buying and selling rates to be given;
- and (where these were not all-inclusive rates) any other charges must be clearly and prominently displayed.

#### **A posteriori information to customers**

32. The improvements in the quality and presentation of information given to customers before entering into a specific transaction need to be matched by improvements in the information given a posteriori in respect of each transaction. In this respect users should be given a detailed breakdown of the separate elements, exchange rate, commission, tax, etc. The need to give customers such information should also be mentioned in the guidelines.

#### **D. COMPLAINTS AND REDRESS**

##### **Background**

33. In their comments submitted to the Commission following publication of the Discussion paper, consumer groups had argued that there should be adequate, accessible, non-legal means of redress available to users in cases where cross-border payments failed or otherwise gave rise to complaint on the part of customers. The Group noted that the Commission Recommendation 90/109/EEC on the transparency of banking conditions relating to cross-border financial transactions calls for the establishment of complaints bodies which should be competent to deal with transfers, as defined in that instrument. It was agreed that the scope of complaints procedures should be widened to include other forms of cross-border payment, whether remote or face to face and whether by transfer (credit or debit), cheque or payment card and to deal with complaints relating to the exchange of cash; the Group also agreed that such complaints would normally be dealt with through the complaints procedures applicable to banking business in general.

##### **State of application of the 1990 Recommendation**

34. The Group was informed by the Commission that it had received formal notification from eight Member States that they had designated bodies, competent to deal with complaints relating to transfers. In the remaining four, it was not yet clear whether satisfactory complaints schemes (which comply with Recommendation 90/109/EEC) existed.

##### **The case for complaints and redress schemes**

35. The Group agreed that the proper handling of complaints was extremely important both for customers and for the banks themselves. It was in banks' own interests to establish within their own organisations efficient systems for handling complaints, which were symptoms that something was not functioning as it should. A proper complaints system within a bank would enable it to improve its efficiency, by identifying failures and remedying them.



36. At the next level, if a complaint could not be satisfactorily resolved within the individual bank, the case for a non-legal procedure was accepted by the Group without the need for discussion of the principle. The Group therefore concentrated its attention on a number of individual aspects of redress schemes.

To which instruments should redress schemes apply ?

37. The Group agreed that all cross-border payment instruments (including cash) should be included within the scope of the various complaints schemes.

To which customers should redress schemes be available ?

38. The Group considered the question whether the schemes should be available to businesses or SME's, as well as individuals. On the one hand bankers argued that businesses, or at any rate incorporated businesses, did not need the special procedures which these schemes afford and that they could look after themselves either using their commercial weight or the remedies of the legal process. On the other hand, business users, SME's in particular, argued that the same rationale favouring redress schemes over legal procedures applied to them. Banking members thought it would be a mistake to include business users, whether large or small, within the scope of redress schemes. The Group recognised that there would be difficulties in making such schemes generally available to business users, mainly because of the more complex nature of the banking business in which they were involved. The Group noted that a solution adopted in Denmark was to admit complaints from businesses provided that they did not differ substantially from those of private individuals. It was also noted that in some Member States complaints by unincorporated businesses were admissible. User members recommended -and the Commission agreed- that consideration be given to extending one or other of these approaches in all Member States.

The nature of the remedies available

39. The Group did not consider it necessary to discuss the level of monetary compensation which redress bodies should be empowered to award. The Group noted in its brief review of existing schemes that some national bodies operated within stipulated limits whilst others did not appear to. However, it was noted that such a procedure did not remove the legal rights of complainants to seek redress through the courts. It was felt that a better knowledge of existing national schemes should be disseminated both to the banking industry and to users; the Commission was continuing its review of these schemes and would publicize the results.

The nature of the complaints body (or person); in particular "independence"

40. The Commission's 1990 Recommendation was the starting point for the Group's discussion of this point. It provides that :

"One way of applying this principle [i.e. the establishment of complaints procedures] would be to entrust the task of dealing with complaints to bodies independent of the parties concerned and forming part of :

- the public sector (ministerial department);
- the central bank;
- a specialist body such as the ombudsman's office;
- a contact committee comprising bank representatives and users."

41. The Group discussed the question of the most appropriate form of constitution of the complaints body or qualification of the person (where a single ombudsman was contemplated). Two broad principles were agreed upon, which should guide any further initiative that might be undertaken namely that :

- there should be flexibility, so that different types of complaints bodies could be chosen in different Member States;
- the complaints body (or person) should be sufficiently independent and neutral to be trusted by the parties concerned.

The Group also discussed the question whether any formal mechanism for liaison between the complaints bodies/ombudsmen in different Member States would be needed. The Group suggested that ombudsmen (and equivalent bodies) in different Member States should be encouraged to take up contacts with each other and to consider whether they needed to reach a concordat on the handling of complaints about cross-border payments. The Group accepted the principle under which originating banks would be responsible to originators and beneficiaries banks responsible to beneficiaries.

#### E. SPECIFIC RECOMMENDATIONS OF THE GROUP

##### User needs

42. The Group recommends that the Commission and the banking industry take note of the needs and preferences of users of cross-border payment systems, in their work on the development of Europe's payment systems. In general the Group stresses the major importance of ensuring that the payment systems within the EC are organised so as to provide a service which is, as far as possible (i.e. subject to the constraints mentioned in paragraph 8 above), as cheap as rapid and as reliable between different Member States as are the existing national payment systems. In particular, payment systems should meet the differing needs of all sectors for making both remote and face to face payments. The cross-border acceptability of payment instruments and systems should be strengthened, with priority given to electronic payment.

##### Competition

43. The Group notes the important role played by competition policy in defining the appropriate limits between the co-operation and the competition which are both vital elements in cross-border payment systems. The Group notes the Commission's intention to adopt guidelines (appended to the report of the PSTDG) but notes that they deal mainly with interbank systems and not with payment card arrangements. The Group further noted the intention of the Commission in consultation with users and banks (in an appropriate forum) to draw up guidelines appropriate to payment card arrangements. However, banking members strongly expressed the view that competition policy should not be discussed in this Group and therefore reserved their position on it.

#### **Information on cross-border payment instruments and systems**

44. The Group notes the willingness of the banking industry to improve the information available to customers on cross-border remote payment and welcomes its intention at an early stage to draw up guidelines in consultation with the Commission on the presentation by banks of concise information to users of cross-border payment services covering all essential information to enable users to make informed decisions and to compare different payment methods. A draft of the guidelines prepared by European Credit Sector Associations (ECSAs) and applicable to remote payments is set out in the Appendix. The Group notes the intention of the ECSAs to finalise these draft guidelines by March 1992 and that they would endeavour to have them implemented by banks by January 1993.

So far as face to face payments are concerned, the Group recommends that the information made available to holders of the relevant payment instruments should be reviewed in the light of the principles applicable to remote payments.

#### **Information on exchange rates**

45. The Group recommends that the Commission should seek to ensure that banks and bureaux de change display clear and concise information about their exchange rates for cash transactions showing in particular their buying and selling rates (where this is not an all-inclusive rate) and a prominent indication of any other charges following the principle that there should be no hidden or "surprise" charges. The Group invites the Commission to consider the best means of implementing this recommendation.

#### **Redress procedures**

46. The Group recommends that banking complaints and redress schemes should be competent to deal with all forms of cross-border payment and not be limited to transfers. User members and the Commission thought that consideration should be given to extending these redress procedures to some business users either where their complaint is analogous to one which could be made by a private individual or where the customer is a small unincorporated business. The Group invites the Commission to consider what further steps are necessary to achieve the first aim mentioned above; User members similarly invite the Commission with respect to the second possibility. The Group agreed that redress procedures should be quick, fair and easily accessible. This means, inter alia, that the complaints body should be sufficiently independent and neutral to be trusted by all the parties concerned, but that the precise arrangements for ensuring this independence should respect the different traditions of the Member States.

#### **Follow-up**

47. The Group invites the Commission to give particular attention to the question of organising the follow-up and monitoring of those recommendations which it adopts in order to ensure their effective implementation as soon as possible.



**GROUPEMENT EUROPEEN DES CAISSES D'EPARGNE  
EUROPEAN SAVINGS BANKS GROUP  
EUROPÄISCHE SPARKASSENVEREINIGUNG**

SECRETARIAT GENERAL Avenue de la Renaissance, 12, B-1040 Bruxelles - ☎ 02/739 16 11 - Telefax: 02/736 09 5



**Association of Cooperative Banks of the EC  
Groupement des Banques Coopératives de la CE  
Vereinigung der Genossenschaftsbanken der EG**

Rue de la Science 23-25, Bte 9 • B-1040 Bruxelles • Tél. (02) 230 11 24 - 230 14 19

12F035DI  
T 14  
02.03.1992

**EUROPEAN BANKING INDUSTRY GUIDELINES ON CUSTOMER INFORMATION  
ON CROSS-BORDER REMOTE PAYMENT**

**I. INTRODUCTION**

The present guidelines have been prepared by the three European Credit Sector Associations, i.e. the Banking Federation of the EC, the European Savings Banks Group and the Association of Cooperative Banks of the EC - in the light of work carried out by the Commission of the European Communities in relation to examination of payment systems in the internal market. Their purpose is to provide guidance to the Associations' member organisations in issuing recommendations to member banks in relation to the production of brochures and other literature for information for their customers on cross-border remote payment.

Making cross-border remote payments is an activity which many customers undertake infrequently. It is important therefore that information is made available to help them to understand the various transfer methods which they can use and to choose which cross-border remote payment method is best suited to their individual needs.

However, all banks are not active in the cross-border remote payment business; those which are, do not always provide a full range of cross-border services. The list of services mentioned in the following pages (Sections II and V) might therefore be in some cases very rudimentary, by their very nature and not for lack of transparency.

This document sets out the guidelines which should be followed by individual banks in providing their customers with information relating to the normal circumstances under which cross-border remote payments are effected. It is recognised that the nature of cross-border remote payments is such that full information is not always known by the customers' bank or branch, especially given the lack of control which the sending bank may have over the beneficiary's bank abroad.

Nevertheless the emphasis should be on making as much information as possible available to the customer, and where information is not known, this should be made clear to the customer.

The following sections set out the general principles on which the banks should base their information to the customer, the definitions of the terms used, the examples of the types of remote payment which might be covered and how the information could be presented to the customer.

It should be noted that although these guidelines are intended ultimately for European Community banks, many cross-border remote payments do however involve banks outside the Community.

\* \* \*

## II. GUIDELINES

1. The bank should issue for its customers a list of the services the bank offers to effect cross-border remote payments.
2. The bank should also issue for its customers information describing each of these services and indicating their essential characteristics so that these may be evaluated by the customer according to his requirements.
3. For each of these services, this information should at least include:
  - 3.1. a basic description of the service;
  - 3.2. the way in which the service can be used, possibly including details to be provided by the customer in order for the funds to reach the beneficiary and to satisfy any technical, regulatory or other requirements;
  - 3.3. an indication of the time generally needed for the funds to be credited to the account of, or to be available to the beneficiary, under normal circumstances;
  - 3.4. the basis of any commissions and charges payable by the customer to the bank, including the basis of the exchange rate applied to the transactions and foreign exchange commission, if any;
  - 3.5. the value date applied by the bank in debiting the customer's account;
  - 3.6. ways in which the customer may obtain further information, including tariffs and exchange rates in effect. This might consist for example of notices in branches, or an indication of how the relevant person or office could be contacted;
  - 3.7. where applicable, specific warnings with regard to certain means of remote payment.
4. The bank should also include a reference to redress procedures available to the customer and the way to access them.

\* \* \*

### III. DEFINITIONS

A **cross-border remote payment** is defined as a transfer of funds between a customer of a country A institution and an institution in country B, which might or might not be a branch of the originating institution, for the benefit of a beneficiary in country B.

A **customer** is to be clearly defined as **remitter** (the person who issues the transfer order) or **beneficiary** (the party to whom the funds are allocated through the crediting of his account or through the sending of a statement enabling him to receive payment of the funds).

### IV. EXPLANATORY NOTES

The numbers hereafter refer to the corresponding points in the "Guidelines" section (Part II.).

1. How the list of the services which the bank offers for making cross-border remote payments is provided is a matter for the individual bank. For example, as many customers undertake cross-border remote payments only infrequently, some banks may well choose to provide a list in their branches; others may choose to provide a different brochure for each service offered.
2. In providing this information about their services, banks should make every effort to present it in a form which is easy for the customer to understand, in particular in plain language, and in order for the customer to compare.
- 3.1 The basic description of each of these services should tell the customer fundamentally how the service operates.
- 3.2 The information should include details on how the customer can have access to the service, for example, whether or not the customer needs to go to his branch to make the transfer.

It should also tell the customer what details he needs to have to make the transfer, such as the name and address of the beneficiary, his bank name, account number and, if available, bank SWIFT/BIC code (BIC: Bank Identification Code).

- 3.3 The sending bank should give its customers such information as is available, including an indication as to how long it would expect the transfer to take in normal circumstances.

It will, however, not always be possible for the bank to know precisely when the transfer will be credited to the beneficiary's account or received by him since this will depend on domestic facilities for funds transfers in either - sending or receiving - country, and on the arrangement between the beneficiary and his bank.

The bank may also want to advise the customer to let the beneficiary know when the bank expects the transfer to be made, in normal circumstances, so that the customer can advise the beneficiary if it is not received in that timescale and the beneficiary can investigate what has happened to it.

It may be particularly difficult to provide information on timetables in some circumstances, for example where the beneficiary's bank does not have a correspondent relationship with the sender's bank and another one or more banks need to be involved. In these circumstances this should be made clear to the customer.

- 3.4. This information may change fairly frequently. It may therefore not be possible to give the customer the precise charges figures in a brochure setting out the bank's services. In these circumstances the information could be provided in another way. The information given shall indicate to the customer where or how he can obtain the precise charges to be levied, for example, from his branch.

This should include an explanation to the remitter of the fact that the beneficiary's bank will sometimes levy charges when the money is received, and to indicate whether the bank allows the customer the option of paying these charges himself. The bank should explain to the customer that it may not know the sums involved even after the transaction has been completed. Such information would entail the sending bank addressing a request for specific details to all the institutions involved in handling the operation. Some remitters will be content for the beneficiary to be levied any charges by his bank.

The beneficiary of a cross-border remote payment may also incur certain charges; their amount will depend on the means of transfer used by the remitter and on the treatment given to the payment operation. The customer may obtain the appropriate additional information from his bank.

\* \* \*

## V. ILLUSTRATION OF THE GUIDELINES

### I. OPTIONS THAT MIGHT BE AVAILABLE TO CUSTOMERS WHO WISH TO EFFECT A CROSS-BORDER FUNDS TRANSFER

Cross-border funds transfer  
 Express cross-border funds transfer  
 Bank foreign draft  
 Bank draft/cheque  
 Electronic transfer  
 Standing order (regular transfers only)  
 Cheque remittance  
 Eurocheque remittance  
 Internal transfer  
 Credit card  
 Debit card (where applicable)

It should be noted that these options should be considered solely in relation to their cross-border rôle, i.e. where a remitter and a beneficiary are located in different countries. The options may differ from country to country and from bank to bank.

### II. EXAMPLE: CROSS-BORDER FUNDS TRANSFER

#### Basic description :

This is an order from a bank customer to his bank to transfer abroad an amount to a beneficiary.

Main characteristics of the type of remote payment	Sum to be transferred (in local or foreign currency)	Basis of commissions and charges, including foreign exchange commission	Value date applied to the debit of the customer's account	Indicative time for remote payment to the beneficiary
...	...	...	...	...

Details to be provided : Beneficiary's bank SWIFT/BIC code, name and address, bank account number and/or name and address of the beneficiary.

Specific observations : The customer should specify which of the parties - himself (the remitter) or the beneficiary, or both - should pay any bank charges incurred. The normal practice is for the remitter to pay any charges payable to his own bank, and for the foreign beneficiary to pay for any charges payable to his bank.

---



# BANCA D'ITALIA

C E C

Rome, September 1991

Payment Systems

Technical Development

Group

## SYSTEMIC RISKS AND SUPERVISION

by C. Tresoldi

### 1. The evolution of payment systems

The current configuration of payment systems is the outcome of a long-term drive to make trading smoother and minimize the associated costs.

In the last few years this process has accelerated. Technological and financial innovation has favoured the deepening of domestic and international financial markets, enhanced the efficiency of markets in managing information, helped to reduce transaction costs and contributed to the birth of new and more flexible techniques for hedging the risks connected with financial transactions. These changes have gone hand in hand with the increasing financialization of the industrial economies and the rising level of liquidity of financial assets.

Everywhere the recent changes have included a streamlining of regulation, with the criterion of deregulation being applied to the entire range of banking services. Exchange controls have been eased or eliminated and large cross-border capital movements are continually being made. This has steadily reduced the differences between the financial systems in most of the industrial countries and further sped up the internationalization

and integration of markets.

But the liberalization and internationalization of markets has also created a more difficult environment for financial intermediaries. The volume of funds handled and the speed of transactions have accentuated the liquidity risk that each operator has to face. The entry of new intermediaries whose activity is unregulated and which are not subject to the control of the supervisory authorities has made competition fiercer, increasing the individual operator's risk of insolvency. The strong international links created between foreign exchange, money and financial markets have increased the possibility of a chain of business failures. In recent years the greater volatility of interest rates has itself increased the risk of failure of intermediaries.

In the field of customer payment services, the advances in technology have favoured the emerging of new intermediaries competing with the banking system and the launch of new products which, sometimes, make the intermediary responsible for the financial risk involved in the transactions (i.e. credit cards). The efficiency of these intermediaries' internal procedures and the "confidence" they are able to secure on the part of all operators have become important aspects of the functioning of markets.

In the field of payments between financial intermediaries, the pronounced growth in the flow of transactions and the sharpening of domestic and international competition have made it all the more urgent to contain the operating and liquidity costs associated with making payments.

In this new international context, the viability of the payment system has come to depend increasingly on the efficiency and stability of clearing and settlement mechanisms. Clearing enables intermediaries to exchange a multiplicity of payment

operations during the business day and produces a single final net balance for each intermediary. The settlement of the net balance - instead of the single transactions - makes it possible to achieve considerable economies in the reserves of liquidity, which tend to diminish relatively as the system's "multilaterality" increases.

At the same time, however, the clearing mechanism leads to the creation of massive intraday debtor positions, so that the risks inherent in it loom today as one of the chief potential sources of instability for the financial system. Automation and increasing use of computer networks have themselves created new types of risk. The possibility of an intermediary not being able to meet its payment obligations at the moment of settlement of final balances creates a "settlement risk" that may be symptomatic of a temporary liquidity crisis or even an outright failure. (The risks that can emerge in payment systems between financial intermediaries are examined in detail in Appendix A.)

Moreover, the default of a participant can lead to a chain reaction, which could be amplified by the integration of markets. The collapse of share prices in October 1987 and more recent episodes are examples of the global propagation of difficulties arising in an individual market.

These crises put settlement systems to a severe test. Several important clearing participants risked bankruptcy; injections of liquidity alone kept them from failing.

If a financial operator is unable to make payments because of the technical deficiencies of the payment system, the amounts that operator owes to others become uncollectable credits and the default travels through the system by chain reaction.

The case of the Bank of New York is well-known. In November 1985 it suffered a software-related computer failure and had to

pay the operators who had sold securities without being able to deliver the securities to the buyers and collect the related payments. Since the inability of the Bank of New York to cover the massive overdrafts could have caused the problem to spread throughout the clearing system and set off a chain of defaults, the Federal Reserve Bank of New York was forced to grant an unprecedented loan of \$22.6 billion.

These examples point up the importance of guaranteeing the integrity of the payment system at all times. The operators who participate in it must be fully aware of the risks involved and face them on their own initiative. But it is equally clear that the monetary authorities cannot remain neutral or passive in the face of the existing systemic risk, which affects the stability of the financial system. Controls on transparency are a necessary but not a sufficient condition in order to guarantee the system's stability.

The objective of central banks is to reduce systemic risk, i.e. the risk that the default of one institution, and its resulting inability to meet its obligations when due, will lead to the illiquidity or failure of other institutions.

Systemic risk is therefore related to the relative propensity of payment and settlement systems to transmit exposures suddenly or unexpectedly from one participant to another, and from one market to other markets, in ways that will make it more difficult for all participants to manage and contain their exposures.

In the context of payment systems, the likelihood of a participant's default increases as the size and the duration of his exposures grow. It results in increasing systemic risk.

Furthermore, markets themselves do not ensure that solvent intermediaries will be able to overcome situations of

illiquidity. Hence the need for lending of last resort, to prevent illiquidity from spreading through the system by the "domino effect". At the same time, however, individual banks must never rely on central bank refinancing, in order to avoid imprudent and lax behaviour.

In summary, a payment system created by market forces alone might be able to satisfy some of the market's needs but would not be able to guarantee the soundness of the financial system as a whole.

In a payment system based on fiat money, only central bank money gives transactions finality, both in payments between customers and in transactions between intermediaries. As a matter of fact, a transaction is "final" only once it has been settled by cash or through debiting/crediting the accounts held at the central bank.

From their daily experience central banks know that the linkage between the payment system, the money and financial markets, monetary policy and supervisory responsibility is not only conceptual, but practical and operational. Every act that ends in an accounting transaction with the banking system necessarily involves the finalizing of a payment, the intervention of monetary policy and the transfer or mopping up of liquidity. A greater system's operational efficiency tightens these links and solidifies the cohesiveness of the entire system.

Because of the tasks entrusted to them, the central banks are devoting more and more attention to the changes under way in the payment sector. The outstanding problems concern the control of the money market and the control of banks' credit and liquidity risks; the objectives are to improve the financial structures, that is to say both the markets and the methods of settling transactions between banks to each other and to non-bank operators.

The distinction between bank and non-bank institutions is increasingly hard to make in the payment field, but this does not detract from the need for orientation and oversight by the monetary authorities; on the contrary, it enhances it.

The stability of payment and settlement mechanisms is of critical importance to central banks. Disturbances in the settlement process can directly affect central banks in their capacity as the guardians of the stability of the financial system and as lenders of last resort, and in their conduct of monetary policy.

Central banks can seek to assure the stability of payment systems by an ongoing process of overseeing the prudence of the design and management of private payment and settlement arrangements as well as by the provision of their own payment and settlement services. In either case, the concern of central banks is to ensure that the credit and liquidity risks faced by participants are prudently managed and contained and not merely shifted to their other creditors or to central banks themselves.

## 2. The control of risks at the national level

Settlement is the crux of every payment system. Finality of payment is achieved only with the exchange of monetary base. For this to occur in a payment system based on intermediaries, a transfer must be made on the accounts at the central bank. Central banks usually provide the payment system with the liquidity by refinancing intermediaries. In the main industrial countries the right to hold a settlement account with the central bank and thus the possibility of access to lending of last resort is only granted to banking institutions that are subject to

supervision, and even then the selection for access is very rigorous.

Over the last several years the central banks have intervened vigorously in settlement systems, both by setting up new systems and operating them directly and by promoting the adoption of measures specifically aimed at controlling risks - with stringent standards of security - in private and public clearing systems.

The former approach has entailed giving banks incentives to settle every single payment operation on their accounts with the central bank, where simultaneous exchange of operations and settlement in "final" money eliminates the risks for the payment system as a whole. Central banks have been working hard in order to minimize the risks connected to this system. Its use has been encouraged by offering banks the possibility of using their compulsory reserve deposits with the central bank for settling payments, providing for the possibility of intraday overdrafts on the accounts with the central bank and introducing automatic queuing mechanisms.

Central banks' intervention with regard to clearing systems has concerned both those that they operate directly and the privately managed systems. The objective has been to increase the responsibility of operators and consequently reduce central banks' exposure to moral hazard. Central banks are able to intervene vis-à-vis privately operated schemes by virtue of their participation in interbank organizations that oversee the development of clearing systems and by their ability to exercise moral suasion in their capacity as banking supervisory authority and lender of last resort.

Measures to protect stability have mainly involved wholesale systems, which have greater implications in terms of risk, and have focused on access, operational mechanisms and the

legal and regulatory framework. The measures that have been adopted in the main industrial countries to control risks apply both to the net and gross settlement systems, though a drastic reduction of the systemic risk is carried out by the gross settlement system alone. These measures are shown in the annexed tables and can be summarized as follows:

a) participation requirements designed to restrict membership to institutions whose solidity and technical and operational efficiency are commensurate with the risks that are created in the system. Control of access has taken on a specific importance in the light of the growing interest of new non-banking institutions in joining clearing systems. Such a development could have implications for monetary policy, since participation in the final phases of settlement of clearing balances is associated with the possibility of access to refinancing. The refinancing of non-bank operators involves problems of moral hazard in respect of intermediaries that are not necessarily subject to supervisory requirements and could also make the money multiplier unstable;

b) mechanisms to prevent crises.

In general, these mechanisms enable system participants to limit exposures vis-à-vis all counterparties. The ex-ante measures include:

- equipping the central banks and operators with information instruments to monitor intraday exposures in real time;
- fixing, by each participant, of limits on bilateral net credit with one another;
- fixing, within the system, of a multilateral net "cap" for each institution as a limit on the overall daylight overdraft that the institution will be permitted to incur;
- pricing of overdraft credit.

c) mechanisms designed to manage defaults.

These arrangements provide for a collateral facility to cover



participants' exposures and the liquidation of the collateral in the event of insolvency. In addition, loss-sharing formulae are sometimes provided for; they aim at allocating the losses among the "surviving" participants in proportion to their activity vis-à-vis the defaulting institution. These measures encourage prudent management of the individual participants' positions in respect of all counterparties. Some systems have also tried to introduce legal clauses to ensure the enforceability of final net clearing balances.

So far, less attention has been devoted to controlling risks in domestic retail systems, which normally do not have significant implications for stability and monetary policy. The crucial question for the functioning of these systems is, rather, their technical and operational efficiency, considering the large volume of operations they handle and the range of persons interested in joining them.

Forms of control on retail systems could nonetheless be justified on the basis of the "unitary nature" of the payment system, which presupposes a cohesive development of the structure of the different systems and of the measures for controlling them. However, it should be stressed that clearing systems' specialisation is not widespread all over the developed countries: in some countries retail and wholesale transactions are dealt with through the same systems.

### 3. The control of risks in cross-border payments

There is no central authority of reference at the international level. Intermediaries exchange and settle cross-border payments through procedures based on bilateral arrangements that are not governed by a framework of definite,

uniform and binding rules. Payor and payee banks settle their debit and credit positions on accounts at correspondent banks in the country that issues the currency of payment. The latter settle their own positions by means of the domestic systems.

The growth of cross-border payments in the last few years has revealed the inadequacy of the traditional schemes, based on bilateral arrangements, and fostered a demand for cross-border netting systems, both bilateral and multilateral.

The application of these netting procedures to cross-border payments is radically reshaping relations between operators and between markets.

At the micro level, the transition from a system based on the settlement of individual operations to one in which only net obligations are settled reduces the need to hold liquid funds in various currencies or to borrow in order to meet liquidity requirements due to the temporary mismatch between credit and debit flows. The end result is more efficient treasury management for both banks and commercial enterprises.

At the macro level, the relative importance of the various national money markets is changing. The physical location of netting systems is becoming a very important factor; the concentration of cross-border clearing and settlement activity in a given place spurs the development of the host country's market and draws business away from the markets of the countries of issue of the currencies included in off-shore clearing.

While cross-border netting systems can permit notable operational savings, they have notable implications in terms of the size of risk and the transfer of risk between countries.

Many factors amplify risk in cross-border payments, over and above the traditional ones associated with operations on the

foreign exchange market.

In the first place, disparities in the legislations complicate the question of the enforceability of the balances arising from clearing agreements between banks established in different countries. The non-enforceability of balances can cause the risks to increase, especially in countries whose laws allow the liquidating authority to adopt a strategy of cherry picking, performing only profitable contracts and rejecting those that are unprofitable.

Secondly, the business days of the payment systems and money markets of the different countries do not coincide because of the differences in time zones and settlement procedures. This amplifies cross-currency settlement risk and can impair the functioning of multi-currency systems when an institution suffers a liquidity crisis.

Lastly, the characteristics of cross-border systems make it difficult to allocate the tasks of controlling the systems among the central banks involved, i.e. the central bank of the country where the system is located, the central banks of the participating institutions' countries of origin and those of the countries of issue of the currencies used.

In the context of the developments in progress, the central banks of the G-10 countries established the Lamfalussy Committee to analyze the implications of private cross-border netting schemes. The Committee's Report defines:

- minimum standards which all systems should meet so that the participants and the netting providers have both the incentives and the ability to manage the associated credit and liquidity risks;
- principles for cooperative central bank oversight of cross-border schemes.

The principles for cooperative oversight are designed to ensure comprehensive oversight by all the central banks having an interest in the stability of the system. In particular, the central bank of the host country should normally have the primary responsibility. The responsible authority should assess the design and operation of the system as a whole, consulting with the other central banks involved where necessary. The central bank issuing the currency involved in the system should share the responsibility in appraising the system's settlement procedures, given the relevance of the settlement for the conduct of monetary policy in that country. Lastly, central banks should discourage domestic credit institutions from participating in systems that do not provide sufficient guarantees.

Although the Lamfalussy Report focuses on wholesale systems, its approach assumes the unitary nature of the payment system and takes the links between the system and monetary policy fully into account. The Report affirms that central banks should inform one another about all clearing systems, for "what may appear to be a small operation in relation to the market of the host country, for example, could be large in relation to the interbank market in the country of issue and vice versa. Relatively small operations can also grow over time and become more significant".

This approach can certainly be applied to cross-border netting systems for retail operations. In principle, such systems should entail appreciably smaller risks than cross-border wholesale systems, since they would not be involved in foreign exchange transactions and be subject to the related risks. On the other hand, there are risks of commingling between wholesale and retail operations and the possibility that the combining of the retail flows originating in the various countries could in any case result in large volumes, with effects on risk and implications for monetary policy. Problems of stability could also result from extending participation in cross-border retail

systems to comprise a large number of banks of various standing and with different abilities to assess reciprocal credit-worthiness.

#### 4. The payment system at the Community level

The foregoing analysis has underscored the significance of clearing and settlement systems for the efficient management of payment mechanisms. It has also stressed that clearing and settlement systems can have important implications for the stability of the financial system and for the conduct of monetary policy.

The "critical" aspects are:

- participation, which can affect stability, the smooth operation of the system and monetary policy, especially if participation also extends to the phase of settlement;
- operating mechanisms, which can affect the size of risk;
- settlement and refinancing mechanisms, which involve central banks directly and can have a significant impact on monetary policy.

Another point that has been emphasized is that these problems chiefly concern wholesale systems. At the same time, attention must also be devoted to systems that handle retail payments. In principle, these systems could handle flows of a very limited size and thus might not have significant implications for stability and for monetary policy.; nonetheless, the need to control them derives from the unitary nature of the payment system, which requires:

- that the payment system follow an organic and coherent course of development in its various component areas so as to be able to exploit possible economies of scale (for example, by means

- of shared infrastructure);
- that risk-management and pricing mechanisms take account of possible shifts of funds between systems;
  - that central banks be enabled to acquire information on the various retail systems on a regular basis so as to be able to evaluate these systems' impact on stability and implications for monetary policy.

\* \* \*

The development of clearing and settlement systems at the Community level raises different problems depending on whether one takes a long or short-term perspective.

In a long-term perspective, the development of clearing systems in a framework characterized by a central bank and a single currency involves problems that are similar in every respect to those examined in connection with the development of national systems.

In particular, problems related to the settlement of balances and the granting of credit facilities would be dealt with by the European Central Bank. The tasks of regulation and oversight would also be the responsibility of the ECB, as laid down in Article 22 of the Draft Statute of the European System of Central Banks and of the European Central Bank: "The ECB and national central banks may provide facilities, and the ECB may issue regulations to ensure efficient and sound clearing and payment systems inside the Community and with third countries".

In a short-term perspective, the development of Community clearing and settlement systems involves problems different from those posed at the national level and coinciding only in part with the ones associated with cross-border systems.

Features which the Community and cross-border cases share

are:

- the presence of cross-currency settlement risks arising from the multiplicity of currencies used and the variety of settlement mechanisms existing in the different national systems;
- the disparity of legislation;
- the difficulty of ensuring effective supervision of systems.

Differences between the two cases stem from the process of economic and monetary unification. In the Community context, progress towards irrevocably fixed exchange rates increases the substitutability between currencies and can lead to currency substitution in response to the characteristics of national payment systems, with possible implications for both monetary policy and risk management:

- monetary policy: the concentration of payment flows in a single currency could affect the demand for reserves and refinancing in that currency, interfering with the conduct of monetary policy in the country of issue. Moreover, currency substitution could prove incompatible with progress towards fixed exchange rates and the exigencies of coordinating national monetary policies;
- stability: the concentration of flows in a single currency could lead to a high concentration of risks in the banks that hold accounts with and receive refinancing from the central bank of issue of the currency in question. In effect, those banks would become clearing banks for all the other banks of the Community.

The emergence of these problems could also make the situation of retail systems more critical; if currency substitution also occurred in that sector, the combined sum of intra-Community retail payments could create significantly large flows in a single currency.

**RISKS IN INTERBANK PAYMENT SYSTEMS****1. Types of risk**

Credit and liquidity risks, the risk of fraud and operation risks are particularly significant types of risk in interbank payment systems. In addition, several kinds of market risks loom large in interbank systems that handle international payments or securities transactions.

Credit and liquidity risks are connected with a bank's ability to have sufficient funds available to meet its obligations.

Liquidity risk is the risk the creditor runs of an obligation being discharged not when due, but with a delay that is not predetermined, however short it may be. By contrast, credit risk is related to the possibility of default by the debtor.

The difference between these two types of risk is one of time horizon; solvency refers to the value of assets irrespective of the length of time required to realize that value, whereas liquidity concerns the ability to satisfy legitimate demands for payment on time by means of an appropriate cash management.

In addition to these financial risks, cross-border transactions involve a series of market risks linked to possible



exchange rate changes. For example, forward replacement cost risk arises in payments systems when default by a counterparty induces a payment system participant to enter into a replacement contract with a third party in order to discharge its own obligations. In this case any loss of principal incurred by the participant will be accompanied by the risk connected with the cost of raising the foreign currency funds to replace those that it has not received in payment.

The risk of fraud, inherent in the payment system function of ensuring the circulation of financial assets in an economy, involves the possibility that payment instruments may be procured unlawfully or be counterfeited. The risk of theft and counterfeiting, which used to concern bank notes alone, has spread and now impinges on other payments instruments such as cheques, payment cards, etc. Moreover, the introduction of increasingly automated procedures has created a wide variety of "computer crimes".

The massive use of computers and telecommunications networks also poses operations risks, the effects of which spread more widely and rapidly than in the past.

Fraud and operations risks will not be treated in this discussion, which will focus on the financial and market risks connected with the execution of cross-border transactions.

## 2. Interbank payment systems

Interbank payments are executed in two logically distinct phases: exchange, involving the exchange of the data and of any accounting documents required for executing transactions, and settlement, when monetary settlement of transactions is effected

by crediting and debiting settlement accounts. The first phase influences mainly the quality of services to customers and the operating costs incurred by banks, while the second affects first and foremost banks' liquidity management and the risks present in the interbank market.

Interbank payments can be settled one by one on a gross basis by entering each individual transaction on the settlement accounts or, by contrast, at the completion of a clearing procedure by which settlement on these accounts is limited to the net balances after offsetting the credits against the debits recorded over a given span of time.

Settlement accounts are generally held with the central bank, although they can be opened with other operators (commercial banks or the clearing house) that act as "settlement agents" either for the whole system or for a group of other participants (the latter in the event that only certain operators are allowed to settle on the accounts of the central bank).

Systems that handle transactions individually on a gross basis, or gross settlement systems, have different characteristics depending on whether or not transactions are settled in real time. More specifically, the following types can be identified:

- 1) systems that provide for real-time settlement of transactions for which sufficient funds are available on the account at the time of execution and reject funds transfers exceeding available reserves;
- 2) systems that provide for transactions to be settled in real time even though sufficient funds are lacking at the time of execution (e.g. Fedwire in the United States);
- 3) systems that provide for transactions to be settled at the

moment when sufficient funds are available on the settlement accounts to ensure finality of the transaction (e.g. SIC in Switzerland). Such systems allow for funds transfers to be executed in real time or to be queued and finalized as soon as sufficient funds are available on the accounts.

Net settlement systems can be classified by different criteria, but three criteria are particularly important for the purposes of risk analysis: the legal force of the clearing agreement, the number of counterparties and the number of operators allowed to settle at the central bank. These factors affect both the size and the distribution of risks. Applying the yardstick of the legal force of the agreement we can identify:

- a1) "advisory" or "position netting" systems, where netting is without legal force and the resulting balances can be considered as final only when they are settled in central bank money (at the end of the clearing cycle). When a participant fails to perform on an obligation at the time of settlement, all its transactions can be cancelled and the balances of all the other participants recalculated (the so-called "unwinding");
- a2) legally binding net settlement systems, in which balances become final when determined and the clearing house operator is unable to stop the execution of transactions and repeat the clearing after having cancelled all the transactions of the defaulting participant.

On the basis of the number of counterparties we can identify:

- b1) bilateral net systems, which provide for the clearing of debit and credit items between pairs of participants. Individual participants must settle (bilateral) balances vis-à-vis each counterparty;

b2) multilateral net systems, with all the transactions of each participant. In such systems each participant has to settle a single balance with a central counterparty, which is notionally or legally interposed as the substitute for the original counterparties.

As regards the number of operators allowed to participate in the settlement, the following distinction can be made:

c1) net settlement systems in which all operators are allowed to settle on accounts with the central bank;

c2) two-tier systems, where only certain operators (settling banks) are allowed to settle on accounts with the central bank and all other participants take part in the phase of exchange of debit and credit items and settle the final balances via a settling bank".

### 3. Financial risks in interbank payment circuits

Financial risks arise in interbank transactions because the transfer of assets is not always accompanied by simultaneous payment. In payment systems a settlement lag comes into being in the interval between the exchange and settlement phases. Payments can be considered to be final and the related obligations discharged only at the moment of final settlement.

Financial risks can take a variety of forms, depending on whether they stem from the inability of participants to:

- discharge one or more obligations vis-à-vis a single counterparty (counterparty risk). A particular form of

counterparty risk is the correspondent risk. In systems that provide for settlement on the accounts of one or more settlement agents, there is the risk of the settlement agent(s) not being able to perform the envisaged services (including those carried out on behalf of third parties). In this case the stability of the system will depend on the financial solidity of the institutions that act as settlement agents;

- settle their positions vis-à-vis the system (settlement risk, so called because it arises at the moment of settlement of final clearing balances). A particular type of settlement risk in international payment systems is the so-called cross-currency settlement risk, or Herstatt risk, i.e. the possibility that a participant may fail to settle its position in one (or several) of the settlement currencies. It stems from the existence of an interval between foreign currency settlements in different countries and systems.

The two types of risk described above are closely interrelated and can appear initially as counterparty and/or settlement risks when a counterparty's default on an obligation makes a participant unable to settle its position vis-à-vis the system.

Counterparty and settlement risks coincide in bilateral clearing agreements and in multilateral clearing arrangements where a central counterparty is legally substituted for the original counterparty to contracts.

These risks become systemic when the failure of one participant to meet its obligations causes a series of defaults by others.

### 3.1. Counterparty and settlement risks

Net settlement systems give rise to credit/debit positions that are closed during the working day. In settlement systems, settlement lag is virtually non-existent owing to the fact that the phase of exchange coincides as a rule with that of settlement.<sup>1</sup> Thus, intra-day credit - comparable to that created in net settlement systems - is generated only in gross settlement systems where the central bank permits participants to carry out transactions even when sufficient funds are lacking for settlement.

In net settlement systems and in gross settlement systems similar to Fedwire, operators treat credit positions that have accrued during the day not as actual credit items but as immediately available funds for loans to customers or other banks. In other words, during the day banks carry out transactions of several kinds using funds that will actually be available to them only at the end of the day.

Interbank intra-day credit stems from factors connected with the distribution of payment flows during the working day or with the economic benefits of such credit compared with other sources of funds.<sup>2</sup> The former factors include:

- the lack of synchronization between the flow of payments made and received in funds transfer systems;

---

1.

Where queuing is provided for, settlement lag is the interval between the time the payment is queued and the time it is executed.

2. For a systematic analysis of the factors determining demand and supply of intraday credit, see D. Mengle, D. Humphrey and B. Summers, "Intra-day credit: risk, value and pricing", Federal Reserve Bank of Richmond, January-February 1987, Vol. 73/1.

- cash management forecasting errors, resulting in the failure to collect funds as expected and/or the necessity of making previously unforeseen payments during the day. The participation of institutions whose actions are not subject to any control by banks, for example the central bank and the Treasury, increases the likelihood of such occurrences.

The latter factors include:

- the need to minimize the costs of having to hold sufficient funds to cover all the expected outpayments for the day;
- the need to exploit the economic benefits of being able to make immediately final the payment vis-à-vis the final user even though sufficient funds are not available at the time the payment is executed.

Failure to take account of intra-day exposures as a form of lending is a factor of instability for the system, since intermediaries do not take all the measures relating to the amount and price of credit that would be necessary in order to contain the risks involved. This implies the absence of limits on the size of the exposure on the one hand and the lack of remuneration for the credit granted on the other. Consequently, within the system as a whole, the amount of intra-day credit will be larger and its cost lower than those that would obtain under efficient conditions.

### 3.2. Systemic risks

Systemic risks arise when default by a bank causes factors of crisis to spread throughout the circuit via the domino effect. Illiquidity can also touch off systemic crises in payment

systems.<sup>3</sup>

The particular nature of multilateral clearing, particularly the fact that settlement of the obligations owed to one participant depends on settlement of the obligations owed to all the others, accentuates the speed at which the effects of a default can spread. Moreover, the repercussions may spread beyond the system where the crisis originated, owing to the integration of different circuits.

In addition, multilateral clearing has potentially negative external repercussions for all participants. A bank that accepts a payment and allows the payee to use the funds prior to settlement incurs not only the (private or internal) cost connected with the risk assumed vis-à-vis the counterparty, but also the (external) costs stemming from the arrangement whereby the finality of clearing depends on the settlement of the balances of all the other participants.

The presence of "external costs" can make the system more unstable. The size of such costs is magnified by the fact that they are not necessarily borne by the persons who have created them, so that the latter have no economic incentive to control their own net positions vis-à-vis the whole system.<sup>4</sup>

The multilateral nature of net settlement systems, which gives rise to operating and liquidity economies, is itself the source of "systemic" risks, or the risk that the illiquidity or insolvency of one institution and its consequent inability to meet its obligations on time may cause illiquidity or insolvency of other institutions. Against a background of "global" markets,

---

3.

While lending of last resort by the central bank makes this unlikely at the national level, it is a significant possibility in international clearing systems.

4.

See D.L. Mengle, "Daylight overdrafts and payments system risk", Economic Review, May-June 1985.



systemic risk is linked to the tendency of net settlement systems to transmit exposures suddenly from one participant to another and from one market to other markets, thus making the management and reduction of exposures more difficult for all participants. What needs to be safeguard is therefore the stability of the payment system as a whole rather than that of the individual clearing system.

Stability, moreover, is inextricably linked with efficiency and operating security, which depend on the technical and operational abilities of all participants and the reliability of infrastructures.

RISK MANAGEMENT IN FUND TRANSFER SYSTEMS

FUND TRANSFER SYSTEMS	MEMBERSHIP REQUIREMENTS		CONTROL ON NET OR NET POSITIONS			PROVISION REQUIRED		LCSS SHARING AGREEMENT	NOVATION OR OTHER LEGALLY BINDING CONTRACT	QUEUES	
	Subl.	Obl.	Real time Monitoring	Debits caps Bil. Mult.	Overdrafts Pricing	Collateral	Reserves balances			queuing of unexecuted transfers	queue mng.mnt facility
<b>BELGIUM</b>											
CEC (N)	●										
Central Bank Internal network (G)	●		●			●					
<b>CANADA</b>											
Paper-based clearing system (N)	●	●						●	●		
Large-value Transfer System (G)	□	□	□	□		□		possible □	□		
I. I. P. S. (G)	●	●					□	●	●		
<b>FRANCE</b>											
Clearing House (N)	●	●									
Sagittaire (N)	●	●	●								
S. I. T. (N)	●	●	●						□		
Ordinateur comp. (N)	●	●									
TBF (G)	□	□	□	□	□	□	□		□		□

(N) - Net settlement system    ● - Measures adopted  
 (G) - Gross settlement system    □ - Measures proposed

RISK MANAGEMENT IN FUND TRANSFER SYSTEMS

FUND TRANSFER SYSTEMS	MEMBERSHIP REQUIREMENTS		CONTROL ON NET OR NET NET POSITIONS			PROVISION REQUIRED		LOSS SHARING AGREEMENT	NOVATION OR OTHER LEGALLY BINDING CONTRACT	QUEUES	
	Subj.	Obj.	Real time Monitoring	Debits caps	Overdrafts	Collateral	Reserves balances			queuing of unexecuted transfers	queue mng. ment facility
<b>GERMANY</b>											
Daily Clearing (N)	●		●					●			
Central Bank Internal network (G)			●					●			●
<b>JAPAN</b>											
Zengin System (N)	●		●			●				●	
FEYSS (N)	●		●		●			●			
BoJ net (G)	●							●			
<b>ITALY</b>											
National Clearing (N)	●		●								
SIPS (N)	●		●							●	
Small-value fund transfer system (N)	●		●							●	
Banca d'Italia Settlement System (G)	●		●					●			

(N) Net settlement system  
 (G) Gross settlement system

● - Measures adopted  
 □ - Measures proposed

RISK MANAGEMENT IN FUND TRANSFER SYSTEMS

FUND TRANSFER SYSTEMS	MEMBERSHIP REQUIREMENTS		CONTROL ON NET OR NET NET POSITIONS			PROVISION REQUIRED		LOSS SHARING AGREEMENT	NOVATION OR OTHER LEGALLY BINDING CONTRACT	QUEUES	
	Subj.	Obj.	2-tiering Systems	Real time Monitoring	Debits caps	Overdrafts	Collateral			Reserves balances	queuing of unexecuted transfers
<b>THE NETHERLANDS</b>											
Bank Clearing House SWIFT system (N)	●										
Central Bank current account (G)	●			●			●				
Bank Clearing House clearing system (N)	●										
Bank Clearing House expedited transfer system (N)	●						●				
<b>SWEDEN</b>											
Interbank clearing system (N)	●			●							
<b>SWITZERLAND</b>											
National Bank giro system											
S.I.C. (G)					●			●		●	

(N) - Net settlement system  
 (G) - Gross settlement system

RISK MANAGEMENT IN FUND TRANSFER SYSTEMS

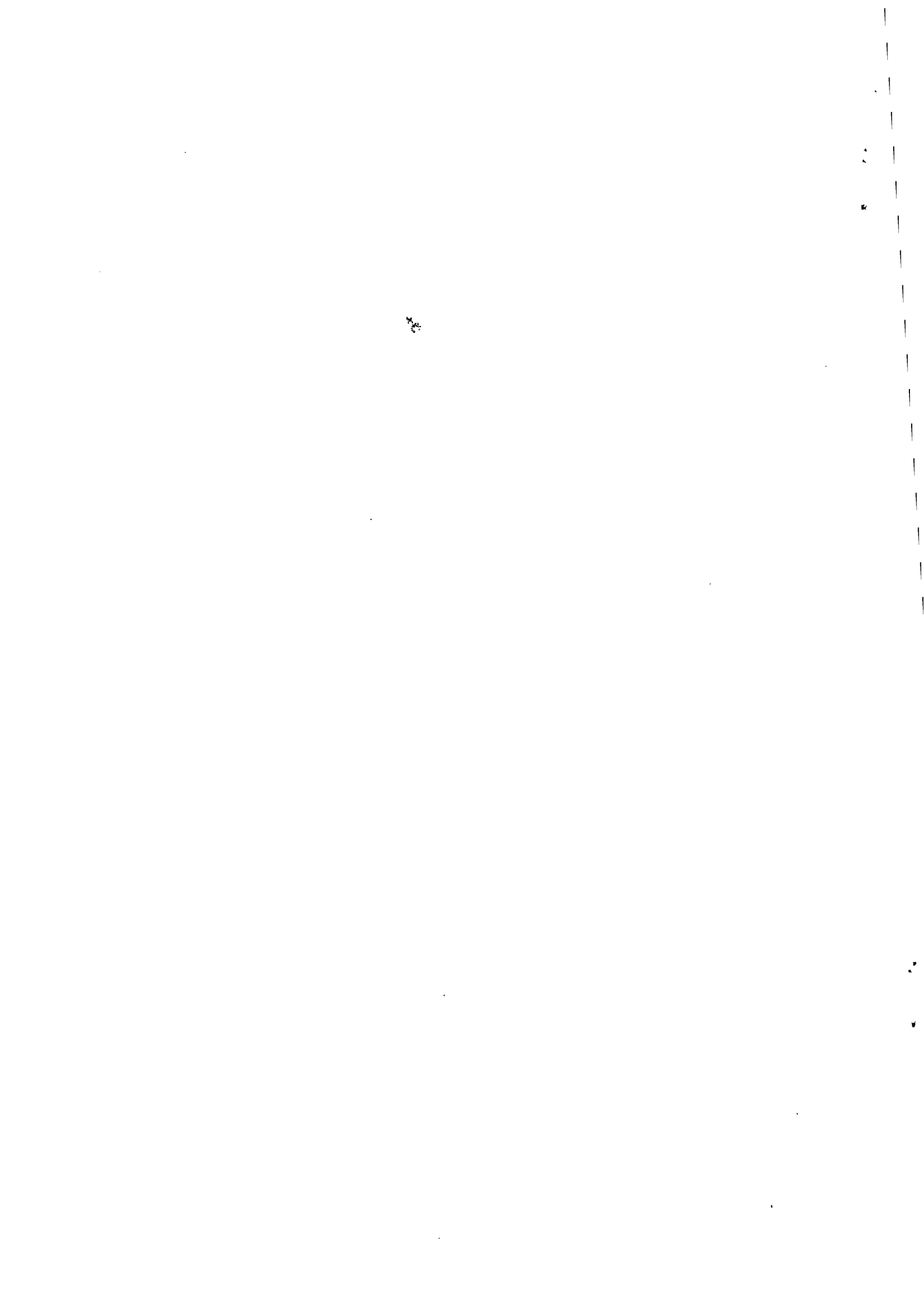
FUND TRANSFER SYSTEMS	MEMBERSHIP REQUIREMENTS		CONTROL ON NET OR NET NET POSITIONS			PROVISION REQUIRED		LOSS SHARING AGREEMENT	NOVATION OR OTHER LEGALLY BINDING CONTRACT	QUEUES	
	Subj.	Obj.	2 tiering Systems	Real time Monitoring	Debit caps Bil. Mult.	Overdrafts Pricing	Collateral			Reserves balances	queuing of unexecuted transfers
<b>UNITED KINGDOM</b>											
BACS (N)											
Town Clearing (N)		●	●								
C.H.A. P. S. (N)		●	●	●							
<b>UNITED STATES</b>											
A.C.M. (N) (private)	●		●								
(N) (Fed)	●			□							
C.H.I.P.S. (N)	●		●	●	●		●			●	●
Fedwire (G)	●			●	● (1)	□	□ (2)	●		● (3)	□

(1) Multilateral debit caps is included in the "Voluntary risk program".

(2) Only for securities transactions (from 10.1.91 on)

(3) Only in special circumstances (financial troubles, etc.).

(N) - Net settlement system ● - Measures adopted  
 (G) - Gross settlement system □ - Measures proposed



EUROPEAN BANKING FEDERATION

# TELECOMMUNICATIONS DOSSIER

REPORT BY DR. MAURIZIO SELLA

Brussels, December 1991

## Contents

1.     Introductory
2.     Deregulation
3.     The situation internationally
  - 3.1    Tariffs
    - 3.1.1   Networks with leased lines
    - 3.1.2   The use of switched lines
    - 3.1.3   Different pricing policies
    - 3.1.4   A future scenario
  - 3.2    Taxes
4.     Standards
  - 4.1    Technical standards
  - 4.2    Application standards
  - 4.3    Operational standards
  - 4.4    Actions by European banking-sector
5.     Impediments to the extension of telecommunications use
  - 5.1    Planning problems
  - 5.2    Conversion from analog to digital transmission
  - 5.3    Tariffs, subsidization and unequal tax treatment
  - 5.4    Third-party traffic
  - 5.5    Approval of equipment
  - 5.6    Administrative relations in the management of international networks
  - 5.7    Service quality
  - 5.8    Security and privacy
  - 5.9    Lack of uniformity in new technology and services
6.     Potential threats to banking intermediation
7.     Conclusions

## Annexes



## 1. Introductory

The telecommunications infrastructure is vital to many sectors of any modern economy. Every country's economy, security, and quality of life now depend largely on the state of its telecommunications. It is because telecommunications are a fundamental resource, actively spurring and stimulating the economy and the defense network, that from the outset they have been managed or controlled by government, run as a monopoly, an instrument to ensure that the development of the telecommunications industry was consistent with national economic policy objectives.

Today some financial services depend for their very existence on telecommunications services. In banking, for instance, there are the "circular" services, notably POS terminals, in which the service itself is indissolubly linked with the telecommunications facility, itself an indispensable element in any would-be worldwide system of authorizations. At the same time the rapid advance of information technology and microelectronics has profoundly transformed the telecommunications industry as a whole (the impact of satellite TV broadcasts from the Gulf is a sufficiently striking instance) and made the arguments on behalf of monopoly much less persuasive than formerly.

A turning point in this regard is certainly the antitrust ruling in the United States forcing AT&T to divest itself of many units and break up its monolithic structure -- a de facto monopoly -- into operationally independent sections.

Since then international views have gradually focused on a single, clear option: namely, possible acknowledgement of a preminent public interest only for carrier technology infrastructure, given its strategic character but above all the enormous investment required, which justifies monopoly. In all other areas, liberalization and competition need to be strongly encouraged, from those based on radio waves (cellular telephones and satellite communications, for example) to those centering on the provision of value added network services.

The state of telecommunications in Europe has been surveyed in recent years by the Telecommunications Committee of the European Banking Federation. The results of the comparative analysis are found in the synopsis attached as Annex 1. Subsequent, more thorough examination and study led to the drafting of the "*Memorandum on International Telecommunications*" (letter of the European Banking Federation, 28 May 1991) (Annex 2).

For our present purposes, Annex 1 constitutes an admirable survey of the situation of telecommunications in the countries of Europe, highlighting the differences, and most particularly as concerns the abandonment of the monopoly principle by which telecommunications were once ruled.

An accurate quantification of this factor on a European scale would clearly require a special study. At least for Italy, though, where we are naturally more familiar with the situation, we can use the data from an annual survey of EDP costs. The report, issued in September, covers 1990, and supplies comparisons with the data from 1987 and 1989 as well. The survey covers the eight major banks, on the hypothesis that these are representative credit institutions that use telecommunications facilities most extensively, owing to their farflung branch networks, the numerous cross-border services they provide, and their greater maturity as telecommunications users.

What the report reveals is a stabilization of the incidence of spending for telecommunications hardware and services. In these major banks the percentage of overall EDP spending was virtually unchanged from 1989. In the smaller credit institutions, however, telecommunications spending is still rising sharply in relative terms, even though it remains notably less significant than in the major banks.

This "asymptotic" pattern suggests that the incidence observed in the major banks represents a limit (in relation to total EDP spending, of course) in the present market situation, one toward which all the other banks are moving.

The overall figures for the eight survey banks indicate that the incidence is around 30 percent on hardware spending (the costs of the transmission system, including equipment and lines, as a ratio to total hardware costs) and just under 20 percent overall (the total cost of the transmission system and telecommunications services as a ratio to total EDP expenditure).

This order of magnitude is confirmed by analysis of the fees charged by the Interbank Society for Automation (Società Interbancaria per l'Automazione, SIA) for withdrawals from cash dispensers using Eurocheque cards. The incidence of telecommunications is about 20 percent of the total.

The European Community has clearly indicated that the proper path is deregulation. This position has been formally set forth, in operational terms, with its "*Guidelines on the application of EEC competition rules in the telecommunications sector - C(91) 1437 final*" (Annex 3).

The European Banking Federation is also studying a code of conduct for the operators of data transmission services, listing the points that should be kept in mind by government monopolies in providing data transmission and telematic services to users. The points have been grouped into three broad areas: *technical, financial and commercial* (Annex 4).

## 2. Deregulation

The total abolition of monopoly will permit, over the years, the healthy development of competition in the market for networks, services and so forth. Realistically, however, for a considerable time to come elements of monopoly will certainly persist, especially for certain basic services (private telephones, etc.). Competition will develop more swiftly in the field of value added network services.

To fully grasp the reasons for the tariffing policies followed in the various countries, a brief historical excursus on how we have reached today's state of incongruencies and discrepancies will perhaps be helpful.

Obviously, any study of tariffs (the prices for the supply of services to customers) and costs (the expenses met by the supplier to provide the services requested) in telecommunications must take account of a multiplicity of interacting factors, not only technical but also social and economic; and all the more so considering the great incidence of these costs and tariffs on every aspect of a country's economic and social development.

Such an analysis is essential for any study which, given a monopoly regime, seeks to offer solutions that must in any case make the prices of services commensurate with the real cost of supplying them (including research and development expenditure).

With the transition to a fully competitive system, on an international scale, prices would be determined first and foremost by the marketplace.

Four conceptual models may be referred to:

1. the traditional European model of telecommunications administration (for simplicity, let us call it the "PTT");
2. the US model before deregulation;
3. the economic and social model;
4. the radical economic and social model.

Two new models are beginning to supplant those older ones:

5. the administrative model;

6. the operational model.

We now turn to examining each of the models in some detail.

The first model, characteristic of most European countries, consists in the assignment of responsibility for telecommunications to a government ministry, administration or agency, generally designated PTT - Post, Telephone, Telegraph - or the equivalent. In this scenario the state as such takes full responsibility for all activities related to telecommunications and accordingly handles all operational activities as well.

It follows that the telecommunications industry is legally protected, and its monopoly status is viewed as the natural consequence.

These systems stress the service supply side, and waiting lists are the norm. New services are developed only when demand is pressing enough to impose it.

It is recognized that services are not supplied uniformly throughout the country either geographically or socially, and the consequent necessity to reorganize public services in more egalitarian fashion is accepted.

Technological development is qualitatively appreciable but slow.

The supply of services is not very diversified, in part for the considerations of egalitarianism cited above.

In this context the determination of costs and tariffing policy are normally based on considerations of the following sort:

The main emphasis is on the amount of total investment, which is considered, in and of itself, to imply sufficiency.

The monopoly enjoys privileged tax treatment with respect to other economic operators.

Capital is generally supplied in the form of an endowment fund, with no requirement that it be remunerated; or else equity is raised in the market, but always on privileged terms.

Measurement of the cost of any single service is totally irrelevant.

Any gains in the supplier's productivity thanks to the handling of a larger volume of traffic are not translated into corresponding reductions in the prices charged to business customers.

\* \* \*

The second model was that present in the United States prior to the anti-trust ruling ordering the break-up of AT&T. The government monitored and protected AT&T's monopoly.

Private enterprise decided which services to offer on an operational basis and saw to the development of the transmission infrastructure at a pace that was acceptable to customers but commensurate with the time required to recover the investment.

AT&T's overwhelming technological, industrial and financial power alone was enough to discourage and turn back all efforts by competitors, in practice preventing diversification on the supply side.

This situation generated the following pricing policies.

The monopoly's operating profits were limited by a ceiling on its return on assets.

Services to households were subsidized, in order to expand the customer base, at the expense of business customers.

The pace of investment was relatively constant, with no surges or sharp declines.

There was no government capital grant to the company, nor any other form of privileged access to finance.

The ceiling on the return on capital was applied to all the services provided taken as a whole.

Here again, there is no need for an exact determination of the cost of any single service.

Both of the first two models -- which are substantially analogous -- began to lose credibility in the 1960s with the first emergence of a demand for private data transmission networks, which differed radically from the traditional telephone network. The links were relatively few and of very high quality (much higher than for voice transmission), and customers were prepared to pay very well. The telephone service, by contrast, sought the widest possible diffusion of telephone use, lowering transmission quality and limiting the range of services available.

\* \* \*

In the 1970s some transitional models began to arise, resulting in only minor modifications of the legislative process governing the telecommunications industry.

In the 1980s new models emerged, approaching the industry from the economic and social standpoint.

Such models sprang, among other things, from the general agreement that the industry was a natural monopoly owing to its strategic economic importance. Further, free competition was perceived as a risk to be avoided, for fear that in certain unattractive economic situations the supply of telecommunications services might shrink below the desired level, diminishing resources available for investment.

Moreover, basic telephone service now appeared to be quite satisfactory, and the first efforts to diversify data transmission services began to be made.

In this context a need emerged to solve the problem of the relation between the supplier's costs and the charge to the customer that could reconcile the traditional approach with the increasing speed of technological change.

The solutions found consisted initially in tariff adjustments for particular customer problems, in particular data transmission and long-distance services. The distance factor was accorded priority in tariff determination. Fixed monthly charges were reviewed, harmonizing them with financial forecasts. And finally, an approach was made to cost analysis for individual services and there was a normalization of tax treatment as well as of the possible sources of finance.

In some countries the economic and social aspects of the scenario were much more marked, with stronger stress on the industry's status as a public service, which in and of itself justified monopoly. Consequently a primary role was accorded to planning, and the development of the telecommunications industry was entrusted to the central government, operating with a view to the social benefits to be derived, apart from strictly economic considerations.

The consequences of this approach on the cost-price front were a slowdown in the development of consistent tariffs, a tendency to the confusion of models and concepts in pricing policy, virtually no contribution to the measurement of costs, and the formulation of financial development plans based on cooperative schemas.

In the United States the completion of the break-up of AT&T in 1983 and 1984 marked the culmination of a critical phase. The process highlighted the intrinsic defects of the telecommunications industry as well as the ways in which they had retarded development thus far and would continue to do so in the years to come.

Everywhere the development of telecommunications depends heavily on the pace of technological change, which in turn is governed by financial factors. For instance, in the early 1970s both the old and the new technologies yielded the same results for voice transmission. The most significant technological developments were the shortening of the time needed to establish the connection, a generic improvement in transmission quality, the reduction of production costs, and so on -- in essence, refinements to a technologically mature product.

However, with the burgeoning demand for transmission capacity from EDP centers, with their need for facilities for digital transmission and optical fiber technology, the necessity of a new model for the new industry arose. And technology made its own contribution, offering alternative solutions to the traditional ones. These new methods, based essentially on broadcast techniques (satellites, cellular telephones) make it possible to form a telecommunications network without laying cables (a requirement which in the past inhibited the creation of any sort of network not linked with the basic public infrastructure), so that large-scale customers can develop their own lines without competing with the public sector and then adapt these private networks (via satellite, for example) to their specific needs.

\* \* \*

This is where the last two models arise, one providing for a regulatory authority and the other based on the operating firms.

The regulatory authority model is marked by the residual hold of the concept of natural monopoly. In any case it clearly separates the regulatory from the management functions, and also makes the former no longer the exclusive preserve of government but calls for the participation of economic and social forces, and in particular user groups.

The network operators become the possible targets of restrictive legislation, while at the same time the introduction of new technology is to be facilitated and every effort made to accelerate technological change.

The role of the state should be reduced under this model, if possible, to that of a sort of referee in a free market, with the function of harmonizing technologies and access to basic services.

The final outcome is that the development of telecommunications and the diversification of the various services are subject to the play of free market forces.

In this scenario, market prices are set by competition between services, while services that continue to be supplied by monopolies may carry higher tariffs.

A need arises for controlling the prices of intermediate services to prevent unfair competitive practices on the part of the suppliers of value added network services.

From the standpoint of the regulatory authority the effective cost of the single service can be ignored, as long as there is a concomitant general reduction in the tariffs charged to customers permitting a better return on investment.

Ultimately, however, the best way to develop a consistent tariff structure consists in the rigorous measurement of the effective cost of providing each service.

The other model, based on the operating firms, refers to the specific features of telecommunications operators in the emerging free market.

First of all, we are witnessing the rise of strategies designed for competition. The firms see their strengths as the range and extension of the services supplied and the advanced technology of the networks, which entails a sudden increase in the need for financing to sustain the processes of extension, modernization and diversification.

The old business methods become obsolete, even though a substratum of public service may remain.

In this picture it is indispensable to anchor prices to the effective cost of the service, though this may be tempered by considerations of average cost, at least for basic services.

For new services, new tariffing standards must be developed.

The foregoing, all in all, outlines what may be termed the economics of telecommunications. This has changed radically in the course of the last three decades and shows no signs of stopping.



Present-day telecommunications systems naturally consist of a combination of elements from these different ideal-type models. For example, a feature traceable to the older models is the present obligation to supply, in any case, a public service, albeit limited to basic equipment and networks, as well as the persistence of outdated desires for monopolistic administration and the attribution to government of the regulatory function, perhaps limited and distinct from management functions.

The elements deriving from economic and social models are the theory that the market determines the development of services, special tax treatment, and the acceptance of some cross-subsidies for social or political purposes.

Finally, elements characteristic of the last two models are first and foremost the acceptance of free competition in the market for telecommunications services, the need for rapid technological advance and modernization, the diversification of services piloted by private initiative, and last, but crucial, the absolute necessity of establishing the real cost of services.

Cross-subsidization is very widespread in those systems based on "administered" prices, which usually apply social and political rather than economic criteria while seeking to alleviate the resulting economic difficulties of the firms providing the service by allowing them to recoup the "losses" on some of their business with a more or less explicit "surcharge" on other services and customers.

In telecommunications the most evident areas of subsidization are home telephones and postal services. There is also substantial cross-subsidization in the field of public transport.

As a rule, home telephones enjoy special price treatment, both in monthly fees and in the charge for message units. This pricing policy is actually anti-economic for the telephone companies, and in fact highly effective antibodies have developed, namely the commonplace long wait for a new phone. Though Latin American levels are not in the picture here (in Venezuela the prospective home customer must tolerate an eight-year wait, or else pay a bribe of \$ 5,000, according to Data Communications), in the fairly recent past Italy has reached waiting times of many months in congested metropolitan areas.

Another way in which costs may be curbed involves the overall quality of the service, as companies postpone replacement of obsolete plant and cables and cut down on maintenance.

Obviously, however, such loss-cutting measures can never make possible the growth and development of the service. There is a consequent need to in-

crease earnings, which is ordinarily done at the expense of business customers, or in charges for additional services. The result is charges for data transmission links that are sometimes as much as five times higher, often thanks to surcharges for third-party traffic. Not to mention the development of cellular telephone networks, in which charges bear little or no relation to the effective cost of providing the service.

For the postal service as well, the price charged for the basic service (the delivery of letters) is probably too low to cover costs, but with few exceptions quality is generally very poor indeed. To obtain acceptable quality, businesses must turn to supplementary services (from insured mail to special courier services), at substantial additional cost that helps offset, albeit only in part, the postal system's losses on ordinary letter delivery.

On the other hand certain postal services (the telegraphic money order, for instance) are unquestionably competitive with the comparable services offered by banks, if not actually superior in speed, reliability and possibly cost as well. In this case, though the service is certainly an attractive one, the charges do not appear to be augmented by cross-subsidization.

### **3. The situation internationally**

In the "frontierless" Europe soon to be realized, banks will more and more commonly find it indispensable to equip themselves with an internal telecommunications network extending to several different countries.

A primary problem for an operator wishing to link branches located in different countries is where to put the hub of the network. The choice is heavily conditioned, both technically and economically, by different fiscal and tariff structures as well as by the quality of the services, particularly their dependability. The right choice, taking due account of international differences, can generate substantial savings and also appreciable improvement in the quality and range of services provided.

At present there can be little doubt that the best location, both in terms of costs and service quality as well as in the relative freedom from constraints and restrictions, is the United Kingdom, though the British advantage has somewhat diminished over the years as conditions evolve in the other countries, owing principally to Community guidelines for deregulation and the competitive impulses thus unleashed.

In terms of service quality, cost, and absence of regulatory restrictions Denmark and Sweden are also very attractively placed, but they are hampered by their peripheral geographical position.

Another attractive location is the Netherlands, most particularly in terms of tariffs and the specially good treatment of business customers.

At the other extreme we find Spain and Italy, the former owing to high prices, severely restrictive regulations and a comparatively scanty supply of services, the latter for the poor quality of the services provided (including at the commercial level, as suppliers are incapable of assisting customers' planning with any sort of acceptable forecasts), the high costs and the presence of monopolistic residues.

The key to the choice, in any case, is the quality of services. Private network managers generally agree that faults and broken connections are anything but rare everywhere, though of course their frequency differs substantially from country to country.

## **3.1 Tariffs**

This is a topic of prime importance not only for banks but also for their customers, to whom the banks' own costs are passed on. This applies especially to interbank funds transfers, in which there is a charge for each transaction that is directly related to the prices charged banks by the data transmission service.

### **3.1.1 Networks with leased lines**

A study by Logica Consulting Ltd. has calculated the costs of two typical configurations, based on the prices charged by British Telecom in 1990:

- 1) a nationwide network consisting of 8 local lines and 2 long-distance lines; calculating  $1/60$  of the installation cost plus the monthly line charge, divided by 10 and converted into US dollars;
- 2) an international network consisting of 8 lines inking up with neighboring countries and 2 transatlantic lines, costs calculated as above.

Overall costs for a typical network have been calculated. An overall index for all the countries considered has been devised.

The differences between domestic and international tariffs obviously make the presentation of this sort of ranking questionable, in that it must refer to a basket of services whose makeup cannot but have a large if not decisive effect on the outcome.

The table drawn up by Logica Consulting is based on a basket of 36 local lines, 9 national long-distance lines, 4 international lines to bordering countries and one transatlantic line. The costs include installation, amortized over five years, and the indices use Denmark as the base.

The first two columns are also based on particular baskets. The first considers 8 local lines and 2 domestic long-distance lines, while the second covers 8 international lines to bordering countries and 2 transatlantic lines. Total monthly leasing charges have been divided by ten in both cases (an artifice whereby each "basket" can be considered as a single network,  $8/10$  made up of local lines and  $2/10$  of long-distance lines). Installation costs have been divided by 60 (amortization over five years).

The composition of the sample networks and the valuation standards adopted, while not in general use, nevertheless seem quite objective and can thus serve as the basis for an initial comparison.

Country	Configuration 1 US\$	Configuration 2 US\$	Index
Denmark	114	1.164	100
United Kingdom	109	1.283	104
Luxembourg	163	1.803	111
Belgium	131	1.703	133
Ireland	159	1.567	137
Sweden	129	1.842	138
Netherlands	170	1.717	148
France	245	1.374	161
Norway	234	1.716	173
Finland	182	2.218	177
Australia	218	1.982	180
Portugal	170	2.442	183
Switzerland	396	1.982	250
Greece	151	3.995	250
Italy	320	3.011	268
Germany	514	1.793	286
Spain	953	2.853	507

Note that the prices used for the UK are those of British Telecom. However, services are also provided by Mercury Communications Ltd., at tariffs that average 10 to 15 percent lower. Using those charges, the United Kingdom would be the most economical location.

By far the worst location is Spain, where tariffs are five times as high as in Denmark, overall, owing principally to the very high domestic tariffs. The situation in Germany is similar, in that domestic charges are relatively much higher than international charges.

### 3.1.2 The use of switched lines

Another interesting ranking for business customers, apart from the cost of leased lines for data transmission, is the cost of an international telephone call. The costs given here apply not only to voice calls but also to telefax transmission. The following table (*based on OECD data*) gives the cost of a three-minute telephone call to and from Italy, using an exchange rate of 1250 lire per dollar.

Country	to Italy		from Italy		Difference %
	US\$	Lit	US\$	Lit	
Belgium	3	3.750	2,84	3.556	+ 5
Denmark	1,71	2.138	2,84	3.556	- 40
France	2,09	2.613	2,5	3.121	- 16
Germany	1,82	2.275	2,5	3.121	- 27
United Kingdom	2,41	3.013	2,84	3.556	- 15
Greece	2,22	2.775	2,5	3.121	- 11
Ireland	2,58	3.225	3,26	4.080	- 21
Luxembourg	1,59	1.988	2,5	3.121	- 36
Netherlands	2,04	2.550	2,84	3.556	- 28
Portugal	2,77	3.463	3,26	4.080	- 15
Spain	3,08	3.850	2,84	3.556	+ 8
Austria	1,95	2.438	2,5	3.121	- 22
Finland	3,97	4.963	3,26	4.080	+ 22
Norway	2,5	3.125	3,26	4.080	- 23
Sweden	2,3	2.875	3,26	4.080	- 30
Switzerland	2,06	2.575	2,5	3.121	- 17
Turkey	5,35	6.688	3,26	4.080	+ 64
Australia	4,04	5.050	11,9	14.875	- 66
Canada	5,96	7.450	8,81	11.013	- 32
Japan	9,84	12.300	12,29	15.367	- 20
New Zealand	5,44	6.800	12,29	15.367	- 56
United States	4,02	5.025	8,81	11.013	- 54

### 3.1.3 Different pricing policies

The very substantial price differences underscored in the table can generally be traced to their historical sources.

In Britain, for instance, policy has been to keep the charges for leased lines very low, thus encouraging business customers to develop their own private networks, in response among other things to the mediocre quality of public lines.

French policy has been diametrically opposite, with massive investment in the construction of a high-quality and relatively low-cost public packet switching network (TRANSPAC).

Germany has followed a third course, investing in public services and discouraging the formation of private networks by raising the cost of leased lines.

The result is that Britain has far more private networks than the other European countries. It now counts some 5,000 private, 2-Mbps networks, as against 1,000 in all the rest of Europe. About the same proportion obtains for 64-Kbps data transmission lines (*source: Enator, Sweden*).

### 3.1.4 A future scenario

Be that as it may, tariff revisions are now under way. In Germany, for instance, a 20 to 30 percent reduction is expected by the end of this year in the cost of lines leased from the Deutsche Bundespost & Telekom (*source: Thomas Hubner, DBT*).

Another crucial factor is the bargaining power of the customer, at least in the case of networks spanning more than one country, where pressure can be brought to bear by a threat to shift the hub to another country to exploit the better terms offered.

For example Vice-President Edward Fopemma of SWIFT (Society for Worldwide Interbank Data Financial Telecommunications) has stated that his company is capable of moving half of its lines from its Dutch hub to another country within six months (*source: Data Communications International*). This capability for moving from one hub to another enables SWIFT to obtain appreciably better terms, including prices, for multiyear leasing contracts.

SWIFT's hub is in the Netherlands, with secondary hubs in London and Brussels. At first the network operated with just the Amsterdam and Brussels hubs,

suffering difficult relations with the telecommunications administrations of various countries, which were reluctant to see third-party messages transmitted on SWIFT's leased lines and consequently set rates by the volume of transmission.

At the end of the 1970s lines began to be offered in the United States at fixed, low cost rates not based on traffic volume, which led SWIFT to establish another hub there.

In the early 1980s the greater openness of the Dutch telecommunications administration, compared with that of Belgium, induced SWIFT to center its European operations in Amsterdam, while Brussels became one of five secondary hubs. This greater openness is shown, for instance, by the fact that volume-based rates were eliminated two years sooner in the Netherlands than in Belgium.

Certainly we can only hope that this revision of tariffing policies to abolish volume-based tariffs continues and is ever more widely followed in future. This is unquestionably one of the best ways to encourage and facilitate the broadest and most correct use of telecommunications facilities.

Reuters, with a network of 450 leased lines linking 200,000 terminals worldwide, has also used the threat of moving its hubs from one country to another to win better terms. Most recently the company shifted five international networks from Hong Kong to Singapore (*source: Tony Cornish on DataPro*).



### 3.2 Taxes

The OECD also offers data concerning the tax treatment of telecommunications products.

Country	Tax treatment
Belgium	19% VAT extra
Denmark	19% VAT included
France	18,6% VAT included
Germany	12% VAT extra if PTT competes with private firms
United Kingdom	15% VAT extra
Greece	16% VAT extra
Ireland	no tax
Italy	9% VAT for households, 18% for business customers
Luxembourg	no tax
Netherlands	18% VAT extra if PTT competes with private firms
Portugal	8% VAT included
Spain	12% VAT included
Austria	no tax
Finland	16% sales tax included
Iceland	24,5% VAT extra
Norway	20% VAT extra
Sweden	23,46% VAT extra if PTT competes or sells
Switzerland	no tax
Turkey	10% VAT included
Australia	no tax
Canada	9% provincial tax + 11% national tax for long-distance
Japan	3% sales tax extra
New Zealand	12,5% VAT included
United States	3% federal tax + state taxes

What emerges most clearly is the enormous variety of tax treatment. In Europe, the most favorable fiscal treatment of the telecommunications industry is found in Austria, Switzerland, Ireland and Luxembourg.

Elsewhere, where value added tax is levied its incidence varies depending on type of economic operator. For some agents it can be wholly or partially recouped. For others, and this includes Italian banks, it cannot be recovered and thus becomes a net additional cost.

In any case, the worst situation is Iceland, with its 24.5% across-the-board VAT and no possibility of reimbursement.

## 4. Standards

The key consideration concerning the issue of standards is that the present machinery for their adoption, requiring the unanimous consent of the various national agencies and authorities, to be obtained by letter through the circulation of proposals and leaving enough time for votes and so on, is simply too slow and cumbersome to enable the European Community to generate a body of common, fungible European standards by 1993 when the single market goes into effect.

The first obstacle is the sheer numbers. The member countries have each developed tens of thousands of standards (e.g., Germany has 20,000, France 13,000 and the UK 10,000); they are mutually incompatible and some date as far back as 70 years.

Even limiting ourselves to the absolute, bare necessities, at least a thousand European-wide standards need to be developed by 1993. But even though several thousand persons are working on the problem, a scant 150 standards had been finalized by 1989.

This situation necessitated a change in modus operandi, first doing away with the unanimity rule in favor of majority rule and supplanting the circulation of letters followed by a vote with that of ad hoc groups working full-time on a single standard. Next came the idea of delegating powers to sector organizations -- the Associated Standards Bodies (ASB) -- to develop the relevant standards. The ASBs are to be fully independent as regards planning, funding and the preparation of European standards, without prejudice to the rules set by the European standardization system or formal agreements with national bodies.

In drafting standards the ASBs can call on external planning groups, funded and coordinated by the ASBs themselves, but they remain responsible to the Community for compliance with its directives, in such fields as safety, health, and consumer protection.

This new procedure was tested in 1990 in the development of telecommunications standards, managed by the European Telecommunications Standards Institute. The success of the process led to the drafting of a Green Paper on *"The development of European Standardization: action for faster technological integration in Europe"*. The conclusion of the paper is that ASBs should be constituted for all other sectors.

Looking more closely at standards in banking, we can distinguish among three major types: technical standards, application standards, and operational standards. Illustrative examples of the three types will help clarify the distinctions.

## 4.1 Technical standards

These consist in technical specifications, which may be national in scope, applicable to a selected group of nations, or global. The scope of application depends on the agency that has developed and issued the specification, which may be national (UNI in Italy, DIN in Germany, ANSI in the United States), regional e. g., CEN/CENELEC for Europe), or global (ISO).

There are also agencies issuing standards on specific matters, such as CCITT (global) and ETSI (European) in the telecommunications field.

Some such standards have been widely and commonly applied in banking: for instance, those mandating machine readable print, such as CMC7, OCRA, OCRB, and E13B, which were developed and specified by ISO, though use has varied from country to country (the codeline on cheques being printed in CMC7 in Italy, France and Spain, while Britain uses OCRB and E13B).

Technical standards applicable to telecommunications comprise X25 for packet switching data transmission as well as protocols V1, V22, V22 bis, V28, V32, etc. When issued at the European level such protocols may differ in some respects from the equivalent American standards, sometimes resulting in subtle incompatibilities that can prove very hard to locate and resolve.

The second sort of standards that arise, generally but not exclusively when official standards are lacking, are *de facto* or *industry standards*, when the dominant position of a single supplier makes its technique and equipment the obligatory point of reference for other market participants. The obvious case in point is the series of IBM-originated SNA and similar protocols.

Self-evidently, however, such standards are a kind of transverse platform, on which the particular applications of the individual industries must find their support. It is hard to see how any single industry, such as banking, could modify them on its own, unless it happens to be the sole user.

In short, these technical standards are essentially the province of the manufacturers or suppliers themselves, which must also provide the technical support for their use. The prime task of the banking industry is simply to keep in close touch, so as to be able to anticipate the likely course of the market on the technical side. It is imperative to avoid blind alleys, where large-scale investment is hard to amortize. One instance is the choice of CMC7, which as a result of the restricted geographical area in which it is used has not enjoyed the technical improvements made on other, far more widely used technologies, such as

OCRB. Even the latter, however, is at a distinct disadvantage compared to the bar code technique used in virtually all other applications. This relatively restricted development entails, among other things, a distinct increase in cost; an OCRB reader, for example, may cost from five to ten times as much as a comparable bar code reader.

## **4.2 Application standards**

These are the standards developed within and for the use of a particular sector. They can accordingly be developed freely, with the sole objective of ensuring interoperability for members of the sector itself.

They are generally built upon the basis of existing technical standards, so that the hardware will be readily available on the market. These underlying standards are then supplemented with superstructures, such as the standard formats of the codeline and of track 2 or 3 of magnetic credit and debit cards.

Application standards in different areas are not infrequently incompatible, at various levels, and optimal interoperability of payment systems will require substantial future unification.

## **4.3 Operational standards**

Operational standards comprise those agreements and conventions that are needed to make the relative services operational in practice. Some such agreements may be reached independently by the contracting parties, while others need to be devised in advance in accordance with legal or other constraints.

The areas covered by such agreements may be procedures, levels of service, regulations, supervision and control by the authorities, requirements for participation, emergency procedures, and so on.

Many of these areas, and in particular general procedures, levels of service, emergency procedures and regulations, are strictly related to the use of telecommunications, which constitute an essential component.

Hence these operational standards must be continuously reviewed in the light of possible technical innovations, to exploit successive technological advances to optimize investment, and ultimately to lower costs and improve the quality of the services provided.

Moreover, some programmes already introduced on a European scale, such as EUFISERV, a company formed by European savings banks to permit debit card holders from any of the participating banks to withdraw cash at any other participant throughout Europe, have demonstrated that European-wide initiatives are fully feasible as well as advantageous.

#### **4.4 Actions by European banking Sector**

For banking, the Federation has called on its member associations to intervene with position papers on the role of the Federation in the standardization work of interest to the banking sector and asking for the requisite funding, discussed at the Lisbon meeting of the Central Committee on 15 February 1991.

The *Financial Sector Standards Coordination Forum*, constituted under the *European Council for Payment Systems* but with a financial contribution from the three federations, was to be included as the "technical executive organ" and its future activities to be carried out under the control of the *Joint Committee for European Banking Standards* formed by the present *Ad Hoc Group on Standardization Structures*. The latter includes representatives not only of the Banking Federation but of two other groups (savings banks and cooperative banks).

Together, the Joint Committee and the Forum should certainly qualify as an ASB, delegated by the Commission to draft standards for the banking sector.

Obviously this body's activities should be carried out in close coordination and integration with developments worldwide in order to ensure interoperability, which is vital to modern banking activities.

A view narrowly limited to the confines of Europe (even extended to EC associates) would certainly be dangerous, with the risk of failing to protect investments.

However, this "window on the world" cannot be direct, in that the International Standards Organization does not now provide for association by any body other than individual national organizations (UNI, for Italy). There are clear organizational reasons for this rule, in that the ISO itself proceeds to the creation of consensus by exchange of letters and requires unanimity.

## **5. Impediments to the extension of telecommunications use**

### **5.1 Planning problems**

The planning of infrastructural development for the telecommunications industry is considered to be an internal matter, the business of national agencies. Information on future developments in technology and services as well as on pricing policies is consequently lacking, so that banks find it impossible to draw up reliable medium or long-term plans.

Planning difficulties, evident enough at the national level, are exacerbated the moment multinational problems are tackled, with additional problems and the risk of wasting the investment made in one country when its utilization depends on the availability of services in other countries. A useful initiative in this field would be Community-wide coordination to harmonize the development of telecommunications transmission infrastructures with a view to joint planning.

One of the most commonly encountered phrases in the telecommunications administrations' commercial literature is "as available". This refers to the scarcity and limited territorial coverage of such advanced services as 64 kbps and 2 Mbps networks.

In the case of international networks, the phrase often means that the service is actually available only via satellite, notoriously inefficient for interactive uses given the transmission delays inherent in the technology (long distances and store and forward techniques).

## 5.2 Conversion from analog to digital transmission

The OECD also offers data from which to compile a ranking of the various telecommunications services in terms of digital transmission (excluding services via satellite).

### % digitalization of public networks

Country	Transmission	Switch'g Centers		Investment 1.987 US\$/cap.
		local	long distance	
United Kingdom	100	42	90	48,6
Netherlands	95	35	15	35,3
Denmark	85	23	40	57,6
France	70	70	75	73,7
Ireland	70	65	85	37,2
Belgium	50	29	75	39,4
Sweden	50	33	50	75,6
Germany	50	10	22	118,8
Italy	45	25	36	41
Portugal	70	20	20	4,1
Spain	47	5	45	19,7
Luxembourg	35	8	10	24,5
Greece	30	8	40	1,3

According to Nick Lea, operations manager for British Telecom International (reported by *DataPro*), outside UK, Denmark and the Netherlands digital data transmission networks are not immediately available.

France is clearly in the vanguard in the digitalization of the entire infrastructure, including switches, and this primacy is reflected in its high investment, an area in which Greece brings up the rear.

Spanish policy has changed lately, with a notable increase in investment, but this is not reflected in the latest available data, which are for 1987.



The waiting period to obtain services varies considerably, from a minimum of 13 weeks for British Telecom International to a three-year period reported by SITA (Societe' Internationale de Communications Aeronautique).

Lack of coordination among telecommunications administrations also seriously undermines the reliability of their estimated delivery times for international lines.

In this context Italy is renowned for its undependability. Lines are sometimes made available months ahead of schedule, sometimes months late, with neither notice nor explanation.

### **5.3 Tariffs, subsidization and unequal tax treatment**

As we have seen, there is absolutely no uniformity in the setting of telecommunications tariffs, with differences that can range up to 500 percent (Italy and Spain are the costliest countries, Denmark and the UK the most economical).

The problem is exacerbated by the very widespread practice of subsidization, whereby tariffs are not set on the basis of the effective cost of a service but according to an assessment of its "attractiveness" to business users (higher price) or its "social importance" (provision of services below cost). The direct consequence is that business customers are penalized in absolute terms, being forced to contribute to some extent (variable, but in some cases very substantially) to cover the costs of services to households, whose tariffs are held down for political considerations..

Another factor that affects costs in highly disparate fashion from country to country is taxation, as tax rates are quite strongly diversified.

The objective should be to develop a uniform tariff schedule for the various countries, corresponding in transparent fashion to the structure of costs for individual services, and totally divorced from "social" considerations.

## 5.4 Third-party traffic

Today, PTTs generally make additional charges if a customer does not keep its leased data transmission lines for its own exclusive use but also carries third-party traffic by reselling or leasing transmission capacity. The best example of this is SWIFT. This tariff policy, which might conceivably have been justified under the old monopoly regime, when such a practice could have been construed as the illegitimate diversion of traffic from the legal monopoly, is no longer justifiable today and must therefore be rooted out. The OECD supplies the following data concerning the rules on utilization of leased networks for carrying third-party traffic.

Country	interlink	to	Third-	Trans mission	
	public nat'l	nets int'l	party traffic	sharing	resale
United States	yes	yes	yes	yes	yes
United Kingdom	cond'l	cond'l	yes	yes	yes
Japan	cond'l	cond'l	yes	yes	yes
Canada	cond'l	cond'l	cond'l	cond'l	cond'l
Finland	cond'l	cond'l	cond'l	cond'l	cond'l
France	cond'l	cond'l	cond'l	no	no
Belgium	cond'l	cond'l	cond'l	no	no
Netherlands	cond'l	cond'l	cond'l	no	no
New Zealand	cond'l	cond'l	no	no	no
Norway	cond'l	cond'l	no	no	no
Sweden	cond'l	cond'l	cond'l	no	no
Turkey	cond'l	cond'l	cond'l	no	no
Austria	cond'l	cond'l	no	no	no
Switzerland	cond'l	cond'l	no	no	no
Denmark	cond'l	no	cond'l	no	no
Iceland	cond'l	no	cond'l	no	no
Greece	no	no	cond'l	cond'l	no
Italy	no	no	no	no	no
Portugal	no	no	no	no	no
Spain	no	no	no	no	no

Clearly, the worst situation is found in Spain, Italy, and Portugal. The rules allow neither interlinkage with public networks nor the carrying of third-party traffic. There are nevertheless a fair number of exceptions to the norm, generally with very substantially increased tariffs.

The most flexible of the European countries is the UK, where there only a few residual technical rules concerning interlinkage between public networks and national leased-line networks.

The resale of carrying capacity on international leased lines is still prohibited under principles laid down in the past by the Series D recommendations of the Comité Consultatif International Télégraphique et Téléphonique, which reflected the rules and tariffs accepted by the various PTTs for the use of international services.

The Committee itself now recognizes the obsolescence of these recommendations, according to its director, Theodor Irmer, and now notes that their revision is required to avoid accounting distortions and to second the evolution of a number of countries towards more liberal policies concerning the provision of services.

In the last two years, for example, Germany has dismantled its restrictions on the resale and reuse of leased lines. So have Britain and Sweden.

In many countries, however, the circumvention of the public service, and in particular voice transmission, which is generally still a monopoly, is discouraged by the use of punitive tariffs (corresponding, in the table, to "cond'l"). A good example is Italy, where SWIFT, for carrying third-party traffic, is obliged to pay volume-based tariffs that turn out to be as much as four or five times as high as those of similar customers that do not carry third-party traffic (source: *Data-Pro*).

Other countries that levy this kind of additional charge on SWIFT include Austria, Germany, Greece, Luxembourg, Portugal, Spain, Australia, the Bahamas, Japan, Singapore, Thailand, Tunisia, and all developing countries in general. The dividing line between users subject to this surcharge and those not subject is rather a thin one. For example, Reuters avoids paying the charges because it uses its lines for the delivery of information to subscribers rather than for the interchange of information among them, as is the case with SWIFT.

## **5.5 Approval of equipment**

Today the use of any piece of equipment linked to the transmission infrastructure of any country is subject to authorization, certification of the equipment's conformity with national norms and standards.

Since norms differ from country to country, there is a bureaucratic and technical procedure to be followed in every case, and the process is ordinarily lengthy, complex and costly.

This obviously affects both time and cost and could well be eliminated by a provision for reciprocal recognition of approvals, so as to minimize red tape. Such a step, however, presupposes the issue of common standards.

Pending the achievement of this self-evidently crucial but difficult objective, action to simplify and streamline the approval procedures in each country and make them transparent would be welcome, seeking where possible to adopt uniform criteria and thus avoid the competitive distortions generated by the present system.

Another table derived from OECD data shows the approval situation in a number of countries, referring to the number of days estimated for the processing of applications according to official sources and according to the manufacturers of telecommunications equipment.

Country	No of days		estimated rejections		%
	Mf.	Offl	1.983	1.988	1.983
	1.988	1.988	1.983	1.988	1.983
Japan	61	25	60	0	2.1
Australia	76	120	120	0.4	2
New Zealand	88	-	14	0	28.9
Canada	89	49	-	1.9	-
United States	94	-	49	-	0
Sweden	98	28	60	0	0
Spain	100	-	-	-	-
Italy	103	0	0	0	3.7
Finland	111	105	120	0	1.3
Austria	111	98	35	0.4	2
Switzerland	114	75	-	16.7	-
Belgium	116	135	135	3.5	0
Norway	118	154	49	16.7	31
Portugal	119	-	270	-	9.1
United Kingdom	131	-	90	-	39.7
Ireland	134	105	-	0	-
Germany	135	105	180	5	3.2
Denmark	136	10	-	2.2	-
Netherlands	140	40	75	6.7	48
France	149	140	365	5.2	48

Not all countries' authorities responded to the survey on which this table is based (US, UK, Spain, and others). Nevertheless a ranking has been drawn up on the basis of equipment manufacturers' estimates. Japan emerges as the promptest, requiring just 61 days to complete the approval process. The best in Europe is Sweden, with its 98 day average.

The case of France is a most interesting one. Official sources speak of a process taking 365 days, but the effective time required, as indicated by the manufacturers, is a much quicker 149 days. Furthermore, the rejection rate dropped from nearly half in 1983 to just 5.25 percent in 1988, a perfect demonstration of how the need to make the new technology operational helps overcome preconceived bureaucratic barriers.

## **5.6 Administrative relations in the management of international networks**

Right now, the management of a telecommunications network operating in more than one country is seriously complicated by the involvement of multiple administrative agencies. The firm interested in running such a network must accordingly establish direct contact with each of the administrations concerned, first and foremost for problems of maintenance but also to deal with accounting and administrative problems in general.

The objective is a single interface, otherwise known as one-stop shopping and one-stop billing. Preferably, this should be the administration that operates the service in the user's country of residence, which should then be responsible for accounting, administrative and operational interaction with its foreign counterparts.

## **5.7 Service quality**

The efficiency and quality of the telecommunications infrastructure varies substantially from nation to nation both in reliability (percentage of up time, mean time to repair, mean time between failures) and in performance (throughput, response time, additional services).

Moreover, not all the national service administrations provide emergency assistance twenty-four hours a day and seven days a week.

This lack of uniformity severely limits a carrier's ability to offer top-quality service, as no more than the minimum provided by the worst of the countries served (the weakest link) can be guaranteed.

Making a global comparison of the quality of telecommunications services is no easy matter, unless one simply limits the ranking to single services and thus compares homogeneous quantities.

One study is an examination of the quality of public data networks conducted by the European Association of Information Services, an association of providers of on-line data banks. The data here must be read with caution, because they are chiefly concerned with international calls and any disruption of the call is "debited" to the country from which the call is made, regardless of where the problem actually arose. Moreover, some countries failed to supply a statistically significant sample of responses. Even so, the raw data for 1989 show

clearly enough that the highest quality is obtained by Germany's X.25 network, followed by the Netherlands, Sweden and France.

There is probably also some distortion in the figures for France, connected with the different composition of the responses, domestic calls largely outnumbering international ones.

By far the worst performance is that of Portugal, with a failure rate of 62.9 percent. Spain, Ireland and Greece are also poor in quality, with failure rates of over 30 percent.

Country	Total No of calls	Int'l calls %	Failures %
Germany	175	56	8
Netherlands	929	85	9,3
Sweden	1.218	73	10
France	777	34	11,7
Austria	345	100	11,9
Norway	790	81	13,9
Luxembourg	57	96	15,8
Switzerland	131	75	16
Belgium	265	92	18,1
Finland	800	85	18,6
Denmark	123	98	19,5
United Kingdom	1.427	91	24,7
Italy	588	71	26
Spain	959	92	30,5
Ireland	65	100	32,3
Greece	15	100	33,3
Portugal	35	94	62,9



SITA maintains that the reliability of leased data transmission lines is substantially below their claimed 99.5 percent availability, which would correspond to down time of just 3.5 hours a month (source: Data Communications International).

In April 1990 only 62 percent of SITA's leased lines performed up to this level, it was reported, and in the past the figure had gone as low as 50 percent.

Another common complaint is that assistance is often available only during regular office hours rather than around-the-clock, which is indispensable to an international network that may cover any number of different time zones.

The low level of assistance impinges directly on costs, in the end, because it requires provision for more back-up lines.

## **5.8 Security and privacy**

This is one of the areas in which the need for uniform, clear and universal standards is most strongly felt. Unfortunately, this is very far from the case, and much remains to be done to reach an acceptable degree of uniformity.

The services related to transmission security (cryptography, key management, access checks, message authentication, etc.) are generally left to the user, which must bear the cost of checking the correctness and applicability of such services and see to overall management of relations with correspondents.

Until a satisfactory degree of uniformity of standards is reached, the best solution is the direct supply of such services by the network managing institutions.

Dictated by the practical need for a solution to problems of technology choice, which the user is ordinarily reluctant to make independently, as it demands an effort disproportionate to the problems of any single firm, this consideration should act as a stimulus for progress in the development of standards.

Only clear and broadly accepted standards can enable users to move independently and economically, attenuating service providers' character as the purveyors of merely technological offers.

## **5.9 Lack of uniformity in new technology and services**

This is most evident in the area of the services grouped under the umbrella of Integrated Services Data Networks (ISDN), whose level of development differs enormously from country to country despite the impulse imparted by the European Community, which sees these services as a powerful tool of integration.

## **6. Potential threats to banking intermediation**

One such threat is the launching on the market of payment instruments that can to some extent cut out the banking system.

Some of the institutions that operate national and international networks have developed, and proposed to the European Telecommunications Standards Institute, chip cards that they intend to issue to their users for access to their services. These cards identify the user with a satisfactory degree of security (they generally use RSA-type algorithms or public keys). And their use in cellular telephone systems is also envisaged. However, they have one particular feature, namely their incompatibility with the magnetic cards currently used in the payment system. And these cards are used not only to control access to the system but also for the debiting of charges. If they were introduced on a large scale, in view of their security features they might make possible the creation of financial circuits outside the control of the banks.

A system of this kind, but using the traditional magnetic band technology, which is less aggressive from the security standpoint, is being offered in Italy by SIP.

The sort of chip card posited by ETSI would differ from the traditional cards in dimensions as well, generating conflicts in terminal design.

This issue needs to be followed closely, and the question must be resolved by the introduction of standards, a field in which the management institutions of telecommunications systems have a clear advantage, thanks to the strong commitment and substantial resources devoted to study groups for the development of norms.

## **7. Conclusions**

The foregoing considerations point clearly enough to a number of requirements for the improved operation of banks in providing services using advanced telecommunications technology over a large territory, such as the single European market, and with a view towards confronting non-European countries as well.

Essentially, these elements are the following:

- 1) the need for the ongoing process of deregulation to be instituted in practice, in the near future, in all the member countries of the Community, allowing the rules of competition to evolve along with the market. This should result in always appropriate levels of technology at economic prices.
- 2) The importance of narrowing the serious disparities in tariff and tax treatment, which distort proper mechanisms of competition and impose additional technical and organizational costs, obviously to the detriment of the services that can be provided by banks.
- 3) The need for closer coordination among telecommunications administrations, with the final goal of achieving one-stop shopping and one-stop billing, i.e. a single interface not only for administrative matters but also for maintenance and assistance.
- 4) The urgency of a sharp acceleration in the definition and adoption of common standards. From this standpoint the changes in decision-making procedures proposed by the Community deserve wholehearted support and are probably the only way to achieve anything like a satisfactory situation by 1993. This problem also embraces that of approval procedures for equipment, where the aim is a single procedure.
- 5) Close attention needs to be paid to the activities of the telecommunications system management institutions, whose control of technological resources could tempt them to constitute systems that could cut the banking system out.
- 6) Vigilance is also required to ensure that providers of services and managers of systems do not acquire dominant market positions in violation of Articles 85, 86 and 90 of the EEC Treaty.
- 7) The ultimate objective is full application of the Open Network Provision scenario, along the lines set forth in Directive 90/387, adopted by the Council on 28 June 1990 and based on Article 100A of the Treaty. This should result in the formation of an open network in all the member countries, "open" being understood as a public, interlinked, international network based on ONP rules.